

# **Process Evaluation:**

## **A Midterm Report of the School-Based/Linked Program**



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# TABLE OF CONTENTS

<b>ABSTRACT</b>	<b>1</b>
<b>INTRODUCTION</b>	<b>2</b>
<b>Background of the Program</b>	<b>4</b>
Medical Component	4
Dental Component	5
Program Administration	5
Funding	6
Barriers Facing the Program	6
Program Demographics	6
Program Redefined Goals and Objectives	6
<b>Purpose of the Study</b>	<b>7</b>
<b>Methodology</b>	<b>7</b>
<b>RESULTS OF PROGRAM IMPLEMENTATION</b>	<b>8</b>
<b>Student Results</b>	<b>8</b>
Demographics	8
Clinic Usage	8
Dental Hygiene	9
Health Education	9
Social Worker Contact	10
How Students Spend Their Free Time	10
Weight: Body Mass Index (BMI)	10
Food and Nutrition	11
Sports and Physical Education (PE)	12
Attendance and Academic Achievement	13
Client Satisfaction	14
<b>Parent Results</b>	<b>16</b>
Demographics	16
Health Insurance	16
Socioeconomic Status	17
Clinic Convenience	18
Attendance	19
Food and Nutrition	19
Health Education	20
Program Satisfaction	20

<b>DISCUSSION AND COMMENTS</b>	<b>22</b>
Ethnicity	22
Socioeconomic Status	22
Educational Status	23
Access to Quality Primary, Preventive Health and Comprehensive Dental Services	23
Immunization Coverage	24
Academic Performance and Attendance	25
Health Education	26
Behavioral Change	27
Food and Nutrition	27
Social Worker	28
Health and Fitness	28
Health Benefits of Physical Activity and Physical Fitness	29
 <b>CONCLUSION</b>	 <b>30</b>
 <b>BIBLIOGRAPHY</b>	 <b>31</b>
 <b>TABLE OF APPENDIXES</b>	 <b>33</b>

# **Process Evaluation of the School-Based/Linked Health Program 2002 Midterm Report**

## **Abstract**

The Houston Department of Health and Human Services (HDHHS) and Houston Independent School District (HISD) School-Based/Linked Health Program Process Evaluation was conducted during the fall of 2002. Data was collected from each student in a face to face interview and each parent in a telephone interview. Information was also collected from program records and reports. Three hundred and twenty-four students were randomly selected from the four schools in the program and 146 parents of these students participated in the study. The majority of the students and parents felt the program was effective and was changing the attitudes and practices of students toward a healthy lifestyle. The study also reveals that the program was implemented as planned and all its goals will be fully achieved by the year 2004.

## Introduction

Since the early colonial period, schools have been the traditional sites for many of the public health programs in the United States. When public education became compulsory in the mid-nineteenth century, the strategic role that schools could play in promoting public health became recognized. Schools soon became the front line in the fight against infectious diseases and the focal point for providing a wide range of public health and social services for children and families<sup>1</sup>.

In 1998, an estimated 10 million US children lacked health insurance and approximately 12 million children did not receive basic preventive care such as periodic physical examinations or immunizations. The millions of school-age children without health insurance rarely see a doctor and are 25% more likely to miss school for health-related reasons. Schools can provide free access to treatment and preventive health services<sup>2</sup>.

Schools are in a unique position to provide health promotion programs and services to students and faculty, if suitable facilities and trained personnel are made available. Often, when a child misses a day of school because of a health problem, a parent or other adult misses a day of work to attend to that child. This might have an impact in the community through decreased productivity. This impact could be estimated by the cost incurred through the number of days lost. Therefore, health services provided in schools could save work-loss days by parents. Also, school economics could be affected for school districts that rely on student attendance for state funding.

Absences can also affect the child's learning ability, resulting in degraded academic performance. Schools have the potential to become sites for primary health care, early behavioral and mental health interventions, and referrals for more

intensive services. When students receive health care in schools, students spend more time in class than if the students receive health services off-site. School-based health service reduces the negative impact on the education of children in need of health care. It also reduces the financial burden of keeping those children in school.

In the United States it was estimated that by the year 2000, \$60 billion would be spent on 500 million dental visits<sup>3</sup>. This enormous expenditure can be reduced through preventive dental services. Comprehensive dental services can be included in school-based health care. Comprehensive dental services are part of public health dentistry and include:

- Preventive dental services: water fluoridation; oral hygiene instructions to reduce the incidence of gum disease; and of dental sealants, which according to the National Institute of Dental Research, reduces the incidence of dental caries. Sealing one tooth costs less than filling one cavity.

Many US children and adults still do not have access to effective measures to prevent oral diseases. This preventable health problem begins early: 17% of children aged 2-4 years have had caries. Dental decay affects 52% of 8-year-old children and 78% of 17-year-olds. Among lower-income children, almost 50% of tooth decay remains untreated and can cause pain, dysfunction in chewing, underweight, and poor appearance. These problems combine to greatly reduce a child's capacity to succeed<sup>4</sup> (See Figure 5 pg. 24).

The importance of health education has been recognized since the early 1900s<sup>5</sup>. In 1997, the Institute of Medicine advised that students should receive health-related education and services necessary for them to derive maximum benefit from their education and enable them to become

healthy, productive adults<sup>6</sup>. In school-based health care facilities, including medical and dental clinics, health care providers often see their patients at a “teachable moment”.

Comprehensive health education is a planned curriculum presented by qualified professionals to promote the development of health knowledge, health-related skills and positive attitudes towards the health and well-being of the students in preschool through grade 12. Comprehensive school health education is one facet of the comprehensive school health program, which also includes school health services and a healthy school environment.

The number of young people experiencing serious problems that interfere with their learning and performance at school is growing exponentially. A high proportion of children suffer from a diagnosable mental, emotional, or behavioral disorder, and relatively few receive mental health services. These children are at risk of not maturing into responsible adults. This risk increases with low socio-economic disadvantaged communities. When they are entering school, children bring with them conditions associated with poverty, lack of English language skills, the influence of violent neighborhoods, physical and emotional problems, and diverse family circumstances. School authorities should concentrate on alleviating mental, emotional, and behavior disorders as much as they concentrate on improving instruction and school management. Health service providers should also provide information and counseling about healthy and safe lifestyle choices and risk reduction that can motivate students to take responsibility for their own safety and health. Health counseling for students whose health problems are discovered during screening, diagnosis or treatment should address problems such as: use of alcohol, cigarettes, and drugs.

Nutrition is an essential step towards health, which enhances learning. Good health

relates to learning. A child who is hungry or undernourished is unreceptive to learning. Hunger is no stranger to millions of children in America. About 1% of elementary school children and 2-4% of teenage girls show evidence of iron-deficiency anemia<sup>7</sup>. Children with iron-deficiency anemia score lower on a wide range of standardized tests, including developmental scales, intelligence tests, and tasks of specific cognitive function<sup>8</sup>. Students are more inclined to eat nutritious food when:

1. meals are affordable,
2. they meet students' tastes, and
3. the school cafeteria environment is pleasant.

In recent years, the focus on school meals has increasingly emphasized not only hunger and nutrient deficiency issues but also health promotion and disease prevention. More than 26.7 million children eat school lunches with more than 4.8 billion lunches served each year. In 1997, the commodities program's school lunch component spent \$436 million—more than 70 percent of its budget—on animal products, which contain no fiber or complex carbohydrates and help clog the arteries of American children because of high fat and cholesterol content<sup>9</sup>.

Traditionally, state, county or city governments, school districts, private organizations, or medical schools sponsor school-based health services. Bureau of Preventive Health Care in the Houston Department of Health and Human Services (HDHHS) states that 11% of all School-Based Clinics in Houston have a school or a school district as the sponsoring agency. It is noted that 89% of all School-Based Clinics are run by a health care organization in partnership with the school. In Harris County 21.4% are sponsored by HDHHS and Harris County Hospital District. Of this figure, HDHHS sponsors 44% and Harris County Hospital District sponsors 56%<sup>10</sup>.

As of 2001, thirteen medical providers operate 25 fixed or mobile sites serving 154,555 students. When compared to

1998, 46% more providers and 8% more fixed or mobile sites serve 44.4% more students<sup>11</sup> (See Appendices A and B).

### ***Background of the Program***

This School-Based/Linked Program is a collaborative effort of HDHHS and Houston Independent School District (HISD). The participating agencies in the program identified pockets of HISD children living in poverty with inadequate health coverage and limited access to health care. A school-based health program was proposed as a partial solution. In 1993, HISD and HDHHS jointly conducted a needs assessment survey to evaluate health services for Houston children age six to fourteen<sup>12</sup>.

Once the needs assessment was evaluated, HDHHS and HISD agreed to target elementary schools for this program. HISD advertised for participation of schools throughout its district. Elementary schools were targeted for the following reasons:

1. The choice of elementary schools would exhibit the impact of HDHHS' preventive and primary care health programs: Immunization, growth and development monitoring, and screening (speech and hearing, visual, etc.) typically take place in this age group.
2. School-based health services are uniquely able to provide health education because of their setting in educational institutions. Health education has a greater impact on elementary age children who are more open and accepting to new messages.
3. Controversy over reproductive health service constrains a School-Based Health Center's ability to meet the health needs of adolescents. When the program is restricted to elementary age students, reproductive services are not applicable and the constraints are alleviated.

Forty-five schools applied for the school-based program, and ultimately four schools were selected to start a pilot program. On

March 21, 1995, the dental component of the program went into operation with existing staff. The medical component started in February 1996, once a nurse practitioner was hired.

Although there are no absolute requirements for a school-based health clinic, the original four schools in the program were evaluated and selected using the following criteria:

- Presence of a full-time school nurse, with
- Availability of space to accommodate a clinic;
- High enrollment of economically disadvantaged students, the index being the percentage of students eligible to participate in the federally-funded Free and Reduced School Lunch Program;
- High proportion of children not covered by health insurance;
- Accessibility to medical and dental centers, provided at an affordable cost; and
- Approval of the Shared Decision-Making Committee on campus.

### **Medical Component**

The HDHHS Program employs a medical provider—currently a pediatrician. The pediatrician provides preventive services and limited primary care, including treatment. There is a full-time nurse at each school, employed by HISD. The school nurse provides basic care and refers students who need further evaluation to the medical provider. The medical provider visits each of the four schools once weekly. If there is an emergency in which a patient cannot wait to see the program's pediatrician, the patient is referred to the Harris County Hospital District or to a provider of the family's choice.

The pediatrician provides care in the school clinic for common ailments, administers immunizations, and assesses growth and

development. The students are entitled to mandatory Medicaid benefits such as Texas Health Steps. The program provides medical service at no cost to the family. Each student in the participating school and his or her younger siblings are eligible for medical care. Before the pediatrician sees the child, the clinic secretary confirms that a parent has signed the consent form for medical care. The parent also completes a medical history form. After the clinic visit, the clinic sends the child back to class. The student need not be absent from school. The pediatrician consults the Chief Physician at HDHHS on problem cases. The program provides health education for students both in the classroom and in the school clinic, and for parents at the Parent Teacher Organization (PTO) meetings.

In the school clinic, the clinic secretary assists the pediatrician, makes appointments, and maintains records and other related paper work. Within the School-Based/Linked Program, there are three clinic secretaries. One secretary serves two schools, and the other two serve one school each. HISD employs the secretaries.

Also attached to the School-Based/Linked Program are two full-time Social Workers employed by HISD. Each Social Worker serves two of the four schools. They deal with social problems of the students and parents. However, historically most of their time is spent in accompanying the students on the bus to the community dental clinics where the students receive dental care. Thus, the safety of the children is insured during the trip to the dental clinics. Most recently, HISD has contracted the services of Family Services to provide social services. This eliminates the ride with students to the dental clinics.

### **Dental Component**

The eligible students (those who are eligible for the free lunch program) receive dental

services from two of HDHHS' dental clinics. The two clinics each serve two of the four schools on alternate weeks. The HDHHS dentists provide comprehensive dental care (excluding orthodontics) for the students. Comprehensive dental care consists of head and neck examinations, radiographs, dental prophylaxis, topical fluoride, sealants, amalgam restorations, composite restorations, pulp therapy, stainless steel crowns, extractions and space maintainers. The providers see students in the clinic upon completion of the parental consent form and the medical history form.

Each child pays a nominal fee of two dollars at each visit. Children with Medicaid coverage simply show a copy of the monthly Medicaid coverage form. HISD buses transport the students to and from the dental clinics. The siblings of the eligible school child can also receive dental treatment in HDHHS' dental clinics, if they meet eligibility guidelines: ages 1 through 18 years with a City Dental Card, ages 1 through 20 if Medicaid-eligible, or 1 through 18 years of age if CHIP (Children's Health Insurance Program) eligible.

The HDHHS employs the dentists and dental assistants. The School-Based/Linked Program's dental staff provides direct clinical services, and oral health instruction. The Senior Public Health Educator also provides oral hygiene education for students and parents at PTO meetings and at health fairs.

### **Program Administration**

The Dental Bureau Chief, employed by HDHHS, supervises the dental staff. The Program Administrator and an Administrative Aide, whom HDHHS also employs, administer the program. The Chief Physician provides medical direction for the program and is available to the pediatrician for consultation. The Dental Bureau Chief, the Chief Physician, the Program Administrator, and the



Administrative Aide are located at HDHHS' central office: 8000 N. Stadium, Houston.

The HISD and HDHHS have a written agreement as to which entity is responsible for each program component.

- The Program Administrator holds monthly meetings with the program staff to discuss problems and successes of the program.
- The Administrator monitors the day-to-day activities of the program, oversees implementation, and conducts the comprehensive evaluation of the program.
- The Administrator coordinates the School-Based/Linked Program with the National Assembly on School-Based Health Care (NASBHC) and attends its annual conferences.
- The Administrator is responsible for the logistics of the program, including the purchasing and procurement of materials and medications.

The Program Administrator conducts the monthly meetings during the school year. Four of the meetings are General Meetings, which includes HDHHS staff and HISD staff: Clinic Secretaries, Social Workers, School Nurses, Principals, and the Director of HISD Health and Medical Services. The meetings are convened by the Program Administrator who reports on progress made and problems facing the program. Discussions are held and problems are solved.

Six Mini Meetings are convened each academic year. The staff consists of the School Clinic Secretaries, Social Workers, Pediatrician, Senior Public Health Educator and Administrative Aide. The Program Administrator also presides over these meetings. Discussions are held on the day-to-day clinic operations, requisitions are submitted, and staff training and refresher classes are conducted from time to time.

## **Funding**

There is no uniform dedicated funding for school-based health services in Houston. The Houston City Council has appropriated funds for the continued support of this program. These funds are generated from local property tax revenue and from state and federal programs, including CHIP and Medicaid (Title XIX). Title XIX, of the Social Security Act, established a Federal-State matching entitlement program, which provides medical assistance for certain low-income individuals. There is cost sharing between HDHHS and HISD.

## **Barriers Facing the Program**

The greatest barrier facing the implementation of the program is staffing. A second major barrier is that of health education. This major component of this program has been fragmented since the retirement of the Dental Hygienist in 2001. Most recently, a Senior Public Health Educator has been assigned to the program. The plan to extend the program to more schools will depend on added funds available in the future. Planning and implementation are led by the Shared Decision-Making Committee on each school campus. That committee includes HISD staff, HDHHS staff, and community members.

## **Program Demographics**

*Refer to Census and School Profile Tables in Appendixes A and B.*

## **Program Redefined Goals and Objectives**

### **Goals**

- a) To improve easy access to primary and preventive health care for children in need of health services from 70% to 85% of uninsured children in the targeted schools by the year 2004;

- b) To assure that students who participate in the program improve their academic performance from an average of satisfactory to good by the year 2004;
- c) To increase the influence of change in behavioral habits through health and dental education from 75% to 85% of students by the year 2004;
- d) To increase the rate of counseling sessions provided by Social Workers to students and families from 10% to 50%, and to increase the rate of home visits from 0% to 30% by the year 2004; and
- e) To provide comprehensive dental services and increase the rate of students with zero caries from 55% to 70% by the year 2004.

### **Objectives**

- a) The program will promote the medical and dental services at the four schools' "open house" events and at all school fairs, in order to increase the number of patients each school year.
- b) Yearly medical screening will continue to be comprehensive in order to detect problems, which if not treated, might hinder full participation in academic work.
- c) Health, oral hygiene and nutrition education will continue to be our main priorities in order to encourage changes in behavioral habits in an increasing number of children.
- d) The Social Worker will make home visits and increase the number of counseling sessions with families and students each school year.
- e) Dental screening will continue in the four schools. For children who present with dental pathology, efforts will be made to complete treatment before the end of each academic year.

### ***Purpose of the Study***

The Purpose of the Midterm Report is to provide an overview of the general effectiveness of the program, its progress towards meeting its goals, and anticipated outcomes. In the program's In-depth Evaluation submitted in January 2000, the researcher—the Program Administrator—recommended a midterm process evaluation after two years. The researcher wants to assess the match between the program as implemented and the program as planned, i.e. is the program operating day-by-day as intended, is the program reaching the appropriate beneficiaries?

### ***Methodology***

Methodological orientation is quantitative through data collection from interviews and examining program records and monthly reports. Closed-ended questionnaires were

1. Administered to students in a face-to-face interview and
2. Their parents in a telephone interview.

## Results of Program Implementation

### Student Results

#### Demographics

A total of 324 students were chosen at random from the four schools in the School-Based/Linked Health Program. Bonner had a total of 82 students, Easter had 81, Elrod had 82, and McNamara had 79 students selected for the survey.

#### Ethnicity

Two years ago, the previous evaluation was composed of 54.9 percent (n=173 of 315) Hispanics and 40.3 percent (n=127 of 315) African Americans. Hispanics make up 73.8 percent (n=239 of 324) of the Process Evaluation's study population. African Americans make up 22.2 percent (n=72) of the population. The remaining four percent (n=13) were Whites, Asians, and other ethnic groups. The study population represents the total population of the four schools who participated in the School-Based/Linked Health Program.

#### Age & Gender

The survey participants ranged from 5 to 13 years old. The average age in this group was 8.5 years old. The survey represents more female (52.8%; n=171 of 324) than male (47.2%; n=153 of 324).

#### Clinic Usage

All the students in the study used the School-Based/Linked Medical and/or Dental clinic at least once during the 2000-2002 fiscal years. Students averaged 2.2 medical visits and 4.0 dental visits during this time period. Fifty seven percent (n= 185 of 324) of students were enrolled in the School-Based/Linked Medical program. Four out of five students (83.6%; n=271) were enrolled in the School-Based/Linked Dental program. Over forty percent (42.9%; n=139) were enrolled in both programs.

#### School-Based/Linked Medical Clinic Accessibility

The majority of the students (84.6%; n=274) said it was easy to see the school doctor when ill. Ten percent (n=33) said it was not easy while the remaining 5.2 percent did not know.

- McNamara had the highest rate of students who said it was easy to see the doctor when ill (89.9%; n=71 of 82).
- Most students at Bonner (86.6%; n=71) said it was easy to see the doctor.
- Easter students (82.7%; n= 81) said that the School-Based/Linked Medical Clinic was easily accessible.
- Elrod students (79.3%; n=82) said likewise.

#### Dental Clinic Accessibility

Eighty-four percent (n= 274 of 324) of all students felt it was easy to set a dental appointment. The more frequently students used the dental facilities, the easier they found it to set a dental appointment ( $r=0.198$ ,  $p<0.01$ ).

- Easter had 92.6 percent (n= 75 of 81) of the students noting it was easy to see the dentist. Easter received an average of 4.3 dental visits per child with 98.8 percent (n=80) of students enrolled in the dental program.
- Elrod had 87.8 percent (n= 72 of 82) of the students noting it was easy to see the dentist. Elrod had an average of 2.7 dental visits per child with 90.2 percent (n=74) enrollment.
- McNamara had 81.0 percent (n= 64 of 79) of the students noting it was easy to see the dentist. The students had an average of 4.1 dental visits per child with 79.7 percent (n=63 of 79) enrollment.
- Bonner had 76.8 percent (n= 63 of 82) of the students noting it was easy to see the dentist. Bonner had the highest

averaged number of dental visits at 5.5 with 65.9 percent (n=54) dental enrollment.

## Dental Hygiene

### **Brushing**

Almost all of the students brush their teeth at least once a day with only 4.3 percent (n= 14 of 324) admitting that they do not brush regularly. Fifty seven percent (n=187) of the students reported that they brush their teeth twice a day, which was up from 50.8 percent (n= 160 of 315) reported in the last evaluation. Also, more students report that they brush three times a day (23.1%; n=75) compared to the previous evaluation's 14.9 percent (n= 47).

- Bonner Elementary School
  1. Brushed only once a day: 20.7 percent (n=17 of 82).
  2. Brushed twice a day: 40.2 percent (n=33).
  3. Brushed three or more times a day: 24.4 percent (n=20).
  4. Did not brush on a regular basis: 12.2 percent (n=10).
- Elrod Elementary School
  1. Brushed only once a day: 7.3 percent (n=6 of 82).
  2. Brushed twice a day: 64.6 percent (n=53).
  3. Brushed three or more times a day: 22.0% (n=18).
  4. Did not brush on a regular basis: 3.7 percent (n=3).
- Easter Elementary School
  1. Brushed only once a day: 6.2 percent (n=5 of 81).
  2. Brushed twice a day: 64.2 percent (n=52).
  3. Brushed three or more times a day: 28.4 percent (n=23).
  4. Did not brush on a regular basis: 1.2 percent (n=1).
- McNamara Elementary School
  1. Brushed only once a day: 19 percent (n=15 of 79).

2. Brushed twice a day: 64.6 percent (n=53).
3. Brushed three or more times a day: 17.7 percent (n=14).
4. Did not brush on a regular basis: 1.3 percent (n=1).

### **Flossing**

Most students, 70.1 percent (n= 227 of 324), reported that they floss their teeth at least once a day. This was up from the 64.8 percent (n= 204 of 315) of students who said they flossed in the last evaluation. The remaining 29.9 percent (n=97) either did not floss on a regular basis or did not answer the question.

- Bonner had 86.6%(n= 71) of students who flossed at least once a day.
- Easter had 77.8%(n= 63) of students who flossed at least once a day.
- Elrod had 54.9%(n= 45) of students who flossed at least once a day.
- McNamara had 60.8%(n= 48) of students who flossed at least once a day.

## Health Education

Fifty-seven percent (n= 183 of 324) of students said the School-Based/Linked Health Program's health education activities were excellent. Almost all of the students, 97.2 percent (n= 315 of 324), said the health education was useful and important. There were some statistically significant differences between the schools and the health education rating (p<0.01).

- Half of Bonner's students, 52.4 percent (n= 43), reported the health education was very good or excellent. All of the students at Bonner said health education was important and useful.
- Four out of five students from Easter, 80.2 percent (n= 65), said the health education was very good or excellent. Almost all (98.8%; n=80 of 81) said health education was important and useful.
- Two-thirds of the students or 65.9 percent (n= 54) from Elrod said the

health education was very good or excellent. Ninety-five percent (n=78 of 82) said that health education was important and useful.

- Nearly all of the students (86.1%; n= 68) from McNamara thought the health education was very good or excellent. Ninety-five percent (n=75 of 79) said that health education was important and useful.

### **Social Worker Contact**

One-third (34.9; n=113 of 324) of all students have consulted with one of the School-Based social workers about their personal problems within the past year. The number of times a student was in contact with the social worker was not dependent on the number of times the student goes for a dental visit. (The social workers accompanied the students on the bus enroute to the dental clinic.)

- The Social Workers consulted more children at Easter and McNamara, 33.6 percent (n= 38 of 81) and 30.1 percent (n= 34 of 79), respectively.
- The Social Workers consulted with 18.6 percent (n= 21 of 82) of students at Bonner and 17.7 percent (n= 20 of 82) of students at Elrod.

### **How Students Spend Their Free Time**

Two-fifths of students (41.4%; n=134) reported that they like to play outdoors after school. Thirty-eight percent (n=51 of 134) of the students who play outdoors after school also participated in sports activities 4 times a week. Twenty-two percent (n=41 of 188) of the students who do not play outside played sports 4 times per week. A majority of the students participated in sedentary indoor activities such as reading a book, watching television, playing on the computer, or playing video games, 58.0 percent (n=188). Two students did not specify what they did during their free time.

Activities according to school.

- Elrod students (62.2%; n=51) read during their free time.
- Students at McNamara chose to play outdoors (51.9%; n=41 of 82), watch television (59.5%; n= 47), or do both activities (36.6%; n=30).
- Easter students played outside (40.7%; n=33 of 81).
- Bonner students played outside (35.4%; n=29 of 82), played on the computer (29.3%; n=24), or read a book (35.4%; n=29).

### **Weight: Body Mass Index (BMI)**

As part of the School-Based Process Evaluation, an archival search was conducted on all students who had their weight and height taken during the 2001 and 2002 school years. The School-Based program was able to retrieve 505 student records during this time period. The height and weight measurements were calculated into Body Mass Index (BMI) numbers. The BMI were compared against the child's gender and age group in order to objectively determine if the child was underweight, normal, at risk of becoming overweight, or overweight. Over half of the students (55%; n=278 of 505) were determined to be of normal weight. This was close to the children's perceptions of their weight, 59.0 percent (n=191 of 324) of surveyed children reporting that their weight was normal. Only two percent (n=10 of 505) were underweight. The rest of the students (43.0%; n=217) were either over weight or at risk of becoming overweight. Almost a quarter (23.8%; n=120) were overweight.

### **Children's Perception of Their Weight**

Most of the students describe their weight as being about right, 59.0 percent (n=191 of 324), underweight (26.9%; n=87), or overweight (13.6%; n=44).

- Thirty-eight percent (n=21 of 55) of 5 and 6 year olds said they were underweight. Eleven percent (n=6) of 5 and 6 year olds said they were overweight.

- Twelve percent (n=6 of 50) of 11 though 13-year-olds said they were underweight and 20.0 percent (n=10) said they were overweight.

### ***Weight Control***

A majority of the students (58.6%; n=190 of 324) were not trying to either lose weight or gain weight. Twenty-eight percent (n=91) reported they were trying to lose weight. Underweight and normal weight students made up 62.6 percent (n=57 of 91) of all students who were trying to lose weight.

- Overall, 13.6 percent (n=44 of 324) of all students said they were overweight, and 77.3 percent (n=34 of 44) of them were trying to lose weight.
- Twenty percent (n=9 of 44) of the overweight group were not doing anything about their weight.
- Eleven percent (n=35 of 324) of all students reported that they were trying to gain weight.

### ***Weight Loss Strategy***

Most of the students who had expressed the desire to lose weight also reported that they were taking measures to doing so by exercising (67.0%; n=61 of 91) and of this group eighteen percent (n=11 of 61) said they were both dieting and exercising. However, there was no statistical evidence that these intentions lead to higher sports activities when compared to other students. A few students (18.7%; n=17 of 91) reported that they only went on a diet. Two students reported they were trying to lose weight by taking diet pills. No one in the study reported taking laxatives to lose weight.

## **Food and Nutrition**

### ***Fruit Consumption***

Almost all of the students, 92.0 percent (n=298), reported they eat fruits everyday.

- Bonner students, 93.9 percent (n=77) usually eat fruits.

- Easter students, 92.6 percent (n=75) usually eat fruits.
- Elrod students, 91.5 percent (n=75) usually eat fruits.
- McNamara students, 89.9 percent (n=71) usually eat fruits.

### ***Fruit Juice Consumption***

Fewer students (87.7%; n=284) reported they drink fruit juice rather than eat fruit. A weak correlation exists between the students who do not drink juice and who describe themselves as overweight ( $r=0.188$ ,  $p<0.01$ ). Approximately 9 out of 10 students, who saw themselves as underweight or about the right weight, also drink juice. The figure drops to two-thirds (68.2%; n=30) of the students who described themselves as overweight.

### ***Milk Consumption***

Nine out of ten students (91.0%; n=295) drink a glass of milk a day. Only 9.0 percent (n=29) reported that they do not drink milk.

- Bonner, 91.5 percent (n=75) students reported they drink milk regularly.
- Easter, 90.1 percent (n=73) students reported they drink milk regularly.
- Elrod, 93.9 percent (n=77) students reported they drink milk regularly.
- McNamara, 88.6 percent (n=70) students reported they drink milk regularly.

### ***Vegetables at Home***

Overall, 83.6 percent (n=271) of students report they usually have vegetables at home with their meals. Only 12 students or 3.7%, said they do not have fruits or vegetables in their diets on a regular basis. Most of the students (79.3%; n=257) included both vegetables and fruits in their diets.

- At Elrod, 91.5 percent (n=75) of students ate vegetables.
- At Easter, 88.9 percent (n=72) of students ate vegetables.
- At McNamara, 79.7 percent (n=63) of students ate vegetables.

- At Bonner, 74.4 percent (n=61) of students ate vegetables.

### ***Fast Food***

Some 8.6 percent (n=28) of students did not answer the question. This may have occurred because they did not have any fast food the week they were interviewed. In fact, 70.1 percent (n=227) of all students had one or two fast food meals the week they were interviewed. A few students (9.3%; n=30) reported they had fast food daily. The older students ate fast food less frequently.

- Five and six year olds ate fast food three or more times a week, 38.0 percent (n= 19 of 50).
- Seven and eight year olds ate fast food three or more times a week, 22.3 percent (n= 23 of 103).
- Nine and ten year olds ate fast food three or more times a week, 19.6 percent (n= 19 of 97).
- Eleven, twelve, and thirteen year olds ate fast food three or more times a week, 17.4 percent (n= 8 of 46).

## **Sports and Physical Education (PE)**

### ***Times at Play***

As mentioned earlier in this report, the number of times students participated in sports was related to the number of times that they play outdoors during their free time. Overall, 45.4 percent (n=147) of all students participated three or more times in sports activities during the week they were interviewed. Only 7.7 percent (n=25) reported they had no sport activity.

- A little less than half of all students participated in sports three or more times the week they were interviewed. Bonner and Elrod had the same percent and number of students that participated more than three times with 48.8 percent (n=40).
- Easter had 46.9 percent (n=38) of students that participated three or more times in sports activities.

- McNamara had the least number of students who participated three or more times with 36.7 percent (n=29).

### ***Sports Activities***

Students reported a wide variety of sports activities they had during the course of the week. The average number of different activities reported was two. The top four sports activities the students played were soccer (38.0%; n=123 of 324), running (36.1%; n=117), basketball (25.9%; n=84), and bicycle riding (24.7%; n=80).

### ***PE Class***

Almost all of the students surveyed participated in PE, 94.8 percent (n=307).

- Bonner, 96.3 percent (n=79), students reported they participate in PE.
- McNamara, 96.2 percent (n=76), students reported they participate in PE.
- Easter, 95.1 percent (n=77), students reported they participate in PE.
- Elrod had the lowest participation rate at 91.5 percent (n=75).

### ***PE Time***

The elementary schools have ancillary periods where the students rotate among subjects like music, PE, art and computer. As a result, most of the students or 71.0 percent (n=230) reported they have PE once or twice a week. Students noted the number of times they have PE often fluctuates each week according to their ancillary schedule. However, the question was limited to the week the students were surveyed.

- Bonner students reported having PE once a week (79.3 %; n=65). Overall, they participated 1.3 times.
- McNamara students reported having PE only once a week, 69.6 percent (n=55). Overall, they participated 1.4 times.
- Easter students reported having PE twice a week (48.1%; n=39). Overall, they participated 1.9 times.

- Half of Elrod students reported having (50.0%; n=41 of 82) PE three or more times a week. Overall, they participated 2.5 times.

### ***How Students Felt About PE***

Almost all of the students surveyed felt that PE was useful, 91.4 percent (n=296 of 324).

- Easter students said PE was important and useful, 93.8 percent (n=76 of 82).
- Elrod students said PE was important and useful, 92.7 percent (n=76 of 82).
- Bonner students said PE was important and useful, 91.5 percent (n=75 of 82).
- McNamara students said PE was important and useful, 87.3 percent (n=69 of 79).

### **Attendance and Academic Achievement**

The duration of the student's absence was related to the student's academic achievement ( $p < 0.01$ ).

- Excellent and Above Average students, 55.4 percent (n=87 of 157) were absent an average of 2.9 days.
- Average students, 56.6 percent (n=60 of 106) were absent an average of 4.0 days.
- Satisfactory and unsatisfactory students, 48.3 percent (n=14 of 29) were absent an average of 10.4 days.

### ***Absence***

Overall, 58 percent (n=188 of 324) of all students said that they were absent during the past 12 months of school. The differences found in each school were statistically significant ( $p < 0.01$ ).

- Elrod had the highest rate of students who were absent (70.7%; n=58).
- At McNamara, 68.4 percent (n=54) of students were absent.
- At Easter, 50.6 percent (n=41) of students were absent.
- At Bonner, 42.7 percent (n=35) of students were absent.

### ***Days and Reasons***

The students were given a list of reasons why they could be absent from school. The choices were: illness, death in the family, family vacation, doctor's appointment, did not want to go to school, bad weather, and other. Compared to the last survey, the number of students who reported they were absent from school due to illness dropped from 71.4 percent (n=225 of 315) to 46.9 percent (n=152 of 324). The population of the first survey was a random sample of the entire school population. Also, the duration of illness has decreased from 2.6 days in the last evaluation to 1.4 days in the current evaluation. These results were statistically significant ( $p < 0.01$ ).

Also, as noted in the previous evaluation, the student's absence from school was specific to the elementary school the student attended. However, the school did not affect the duration of absences. Illness accounted for the majority of absences.

The findings noted the following:

- Illness, 46.9 percent (n=152) of students;
- Doctor's Appointment, 7.7 percent (n=25) of students;
- Family Vacation, 4.9 percent (n=16) of students;
- Other reason, 4.9 percent (n=16) of students;
- Bad weather, 4.3 percent (n=14) of students;
- Student did not want to go to school, 3.1 percent (n=10) of students; and
- Death in the family, 2.8 percent (n=9) of students.

### ***Academic Achievement***

School personnel were asked to rate each student on his/her academic achievement during the 2000-2001 school year. They were simply asked if the student's composite grade was Excellent (A), Above Average (B), Average (C), Satisfactory (D), Unsatisfactory (Failing). The scores were then used to compare student responses against various questions throughout the



survey. Academic achievement ratings were not compared against the previous evaluation because those scores were students' and parents' perceptions on academic performance.

The effect schools had on academic performance was significant ( $p < 0.01$ ). Gender also affected the student's academic performance. Girls were rated as Above Average and boys rated as Average ( $p < 0.01$ ). However, the differences in race did not affect academic performance.

- Easter Elementary
  1. Excellent 34.6 percent (n=28 of 81)
  2. Above Average 40.7 percent (n=33)
  3. Average 22.2 percent (n=18)
  4. Satisfactory 2.5 percent (n=2)
  5. No Unsatisfactory students
- Elrod Elementary
  1. Excellent 23.1 percent (n=18 of 78)
  2. Above Average 41.0 percent (n=32)
  3. Average 29.5 percent (n=23)
  4. Satisfactory 5.1 percent (n=4)
  5. Unsatisfactory 1.3 percent (n=1)
- Bonner Elementary
  1. Excellent 10.1 percent (n=7 of 69)
  2. Above Average 10.1 percent (n=7)
  3. Average 60.9 percent (n=42)
  4. Satisfactory 15.9 percent (n=11)
  5. Unsatisfactory 2.9 percent (n=2)
- McNamara Elementary
  1. Excellent 5 percent (n=4 of 77)
  2. Above Average 49.4 percent (n=38)
  3. Average 33.8 percent (n=26)
  4. Satisfactory 9.1 percent (n=7)
  5. Unsatisfactory 2.6 percent (n=2)

### **Client Satisfaction**

Over eighty percent (82.4%; n=267 of 324) of all students gave a rating of both the medical and dental programs. Overall, they rated the program as Very Good. Thirty-seven percent of these student (37.8% n=104 of 267) said both the medical and dental components of the program were excellent.

### **Medical Clinic Satisfaction**

Students were satisfied with their care at the medical clinic (89.5%; n=290). The remaining students were not satisfied with the medical clinic (4.9%; n=16) or did not answer the question (5.6%; n=18). Students reported that the care at the medical clinic was excellent or very good by 71.6 percent (n=232). A majority (54.6%; n=177) of all students said the care at the medical clinic was excellent. The rating differences among schools were statistically significant ( $p < 0.01$ ). There was no statistical significance between the number of clinic visits and the rating the student gave the clinic.

- The majority of Bonner students (54.9%; n=45) said the clinic was very good or excellent.
- About three-quarters (75.3%; n=61) of Easter students rated the clinic as very good or excellent.
- Elrod students rated the clinic as very good or excellent, 73.2 percent (n=60).
- McNamara students had the highest rating of students noting the clinic was very good or excellent (83.5%; n=66).

### **Dental Clinic Satisfaction**

Students were satisfied with the dental clinic (86.7%; n=281). When we asked the students to rate their satisfaction, 69.8 percent (n=226) said the dental clinic was either very good or excellent. A little less than half the students (48.1%; n=156) said the clinic was excellent. Again, the rating differences among the schools were statistically significant ( $p < 0.01$ ).

- As with the medical clinic, the students at Bonner gave the lowest rate of students noting the dental clinic was very good or excellent by 43.9 percent (n=36).
- Elrod students said that the clinic was very good or excellent, 76.8 percent (n=63).
- Students at McNamara said the dental clinic was very good or excellent, 78.5 percent (n=62).

- Easter students rated the dental clinic the highest (80.2%; n=65) of students noting the clinic was either excellent or very good.

## **Parent Results**

### **Demographics**

The parents interviewed for this study were contacted via telephone. School-Based staff members and volunteers interviewed 146 parents from May through September 2002. The parents represented a total of 198 students who participated in the study creating an overall response rate of 61.1 percent (n=198 of 324). Phone calls that were not answered on the first try were attempted three additional times. Also, numbers that were disconnected or wrong numbers were verified by checking school records and public phone directories. However, 21.2 percent (n=69 of 324) of all numbers were either wrong or not working during the survey period.

### **School Population**

There were a total of 146 parents in the survey.

- Bonner had 54 parents, representing 74 students with a 90 percent (n=74 of 82) response rate.
- Easter had 30 parents, representing 51 students with a 62 percent (n=51 of 81) response rate.
- McNamara had 34 parents, representing 37 students with a 47 percent (n=37 of 79) response rate.
- Elrod had 28 parents, representing 38 students with a 46 percent (n=38 of 82) response rate.

### **Survey Ethnicity**

The majority (74.7%; n=109 of 146) of the parents surveyed were Hispanic, 15.1 percent (n=22) were African American, and 3.4 percent (n=5) were either Asian or White. There was no ethnic information regarding 10 parents (6.8%).

- Bonner parents were 100 percent Hispanic.
- Easter parents were split between African American (46.7%; n=14 of 30) and Hispanic (43.3%; n=13).

- Elrod parents consisted of almost two-thirds (64.3%; n=18 of 28) Hispanics.
- McNamara parents were 70.6 percent (n=24 of 34) Hispanic.

### **Number of Children Enrolled per Parent in Each School**

Each parent had an average of 1.8 children enrolled in a School-Based/Linked Health Program during the spring of 2002. Cumulatively, the parents had a total of 261 students enrolled at Bonner, Easter, Elrod, and McNamara elementary schools. There was no significant difference between the schools and the number of enrolled children.

### **Health Insurance**

Factors such as the parent's education were correlated to children without health insurance. Almost two-thirds (65.2%; n=45 of 69) of parents who said they had not obtained a high school diploma also did not have health insurance. The proportion of uninsured children reduced significantly when the parents had a high school diploma/GED (41.8%; n=23 of 55) and the rate dropped even further when the parents had pursued at least some college education (22.2%; n=4 of 18). These findings were statistically significant (r=0.243, p<0.01).

Race was also a factor that correlated with health insurance. Fifty-nine percent (59.6%; n=65 of 109) of Hispanics said they did not have health insurance for their children. Only twenty three percent of African American parents (23.8%; n=5 of 21) said that they did not have health insurance for their children. The differences between race and health insurance is statistically significant (r=-0.242, p<0.01).

### ***Health Insurance Coverage***

Half of all School-Based children do not have health insurance (50.7%; n=74 of 146). The differences between health insurance coverage and schools were most startling when comparing Easter and Bonner. Easter Elementary had 90 percent (n=27 of 30) health coverage while Bonner only had 27.8 percent (n=15 of 54) health coverage. Part of the reason for this difference was because of ethnicity. Hispanics in the survey were less likely to have health insurance than any other ethnic group ( $p<0.01$ ). Bonner's survey population was all Hispanic.

Note:

- Children from Bonner Elementary again had the highest rate of no insurance, 74%.
- Easter had the highest rate of insurance, 90% (n=27 of 30).
- Fifty percent (n=14 of 28) of Elrod and 41 percent (n=15 of 34) of McNamara children were insured.

### ***Types of Health Insurance***

The health insurance coverage was as follows:

- Medicaid 18.5 percent (n=27 of 146)
  - Children's Health Insurance Program (CHIP) eleven percent (n=16)
  - Private insurance fifteen percent (n=22).
- Of the 18.5 Medicaid coverage, 48 percent (n=13 of 27) were at Easter. During the 1999 survey, CHIP was not implemented in the state of Texas. The eleven percent obtained in this survey was due in part to the School-Based/Linked Health Program's CHIP enrollment campaign carried out shortly after the program became available in 2000. Most of the private insurance coverage was mainly at Easter Elementary School (59.1%; n=13 of 22).

### ***Socioeconomic Status***

### ***Employment***

Fifty-three percent (n=76 of 146) of all parents in the survey were housewives. Parents who were employed were manual workers (35.0%; n=21 of 60) earning a bi-weekly salary of \$575. Of parents who were not gainfully employed at Bonner Elementary school, 85 percent (n=34 of 40) were either housewives or homekeepers. Of those employed at Easter Elementary school, 40 percent (n=12 of 30) were housewives/homekeepers whereas 60 percent (n=18 of 30) were gainfully employed.

### ***Occupation***

The highest rate of employment was manual labor (35.0%; n=21 of 60), which includes lawn care worker, waitress or waiter, and construction worker. Of these, 47.6 percent (n=10 of 21) were at Bonner Elementary. Thirteen percent (n=8 of 60) were secretaries and bank tellers, three percent (n=2) were professionals, and five percent (n=3) were professional aides.

### ***Household Income***

Forty-seven percent (n=69 of 146) of parents received an average of \$575 bi-weekly salary, child support and/or social security. The total household income contribution from other members of the family was 52.1 percent (n=76 of 146) making the combined household income of \$701.37 bi-weekly.

### ***Education***

Eighty-five percent (n=125 of 146) of parents did not attend college. Forty-seven percent (n=69) did not even finish high school. According to the US 2000 Census, 32% of the population in the schools' zip code areas, adult population over 25 years, did not receive a high school diploma. Twelve percent (n=18 of 146) of the parent population had at least some college education. However, 61 percent (n=11 of 18) of the college population never graduated. The survey contained 2 (1.4%) parents who had post graduate degrees.

- Bonner Elementary school had the highest number of parents without a high school diploma (62.9%; n=34 of 54).
- Easter Elementary had the lowest number of parents without a high school diploma (20.0%; n=6 of 30). Easter had the highest rate of parents who graduated from high school (63.3%; n=19).

### **Clinic Convenience**

During the 2001-2002 school year, children averaged 2.2 visits to the School-Based/Linked Health Program's Medical clinics. Fifty-two percent of parents took their children to another clinic during the 2001-2002 school year. Almost, sixty-nine percent (68.9%; n=53 of 77) of all parents who took their children to another clinic also had health insurance versus 31.2 percent (n=24) without health insurance.

#### ***Parents who access other clinics in addition to the School Clinic***

Half of the parents (52.7%; n=77 of 146) took their children to another clinic as well as the school clinic within the last 12 months. Among the four schools, Easter parents accessed more health services overall. All Easter parents (n=30) used the school-based clinic and 83.3% (n=25 of 30) also used other clinics. Ninety percent (n=27 of 30) of Easter parents had health insurance for their children. Whereas McNamara used other clinics 44 percent (n=15 of 34) and used the School-Based clinic 44 percent. Bonner and Elrod parents took their children to another clinic 44.4 percent (n=24 of 54) and 46.4 percent (n=13 of 28), respectively. Health insurance rates at these schools were at or below fifty percent.

#### ***Parents Miss Work***

Only 14.3 percent (n=11 of 77) of parents who took their children to another clinic said they missed a day's work. The majority of

parents who took their child to another clinic were housewives/homekeepers (57.1%; n=44), which accounts for the low rate of work days missed. The highest rate of parents missing work were from Bonner Elementary (16.7%; n=4 of 24).

#### ***Visits to another clinic by appointment***

Seventy-four percent (n=57 of 77) of the visits made to another clinic were done through appointment. Leaving twenty-three percent (n=18 of 77) of all parents who went without an appointment.

- All Easter parents who took their children to another clinic made appointments for their children (n=25).
- Bonner parents 70.8 percent (n=17 of 24)
- Elrod parents 69.2 percent (n=9 of 13)
- McNamara parents 40.0 percent (n=6 of 15)

#### ***Wait Time at Other Clinics***

Thirty-nine percent (n=30 of 77) of parents had to wait less than 15 minutes to be treated while 28.6 percent (n=22) had to wait more than 30 minutes. Eleven percent (n=9) waited 45 minutes. Ten percent (n=8) waited more than an hour.

- Bonner's wait time was less than 15 minutes (58.3%; n=14 of 24).
- Easter's wait time was less than 15 minutes: 48 percent (n=12 of 25).
- McNamara's wait time was less than 15 minutes: 20 percent (n=3 of 15).
- Elrod had one parent (7.7%) with a less than fifteen-minute wait time.

#### ***Traveling Options***

About half of the parents (51.4%; n=75 of 146) reported they would have to travel by private car in order to go to a community clinic. Thirty-seven percent (n=54) would have traveled by bus. Parents also indicated that they would have to find other means to get to a community clinic (10.3%; n=15).

- About half of all parents from Elrod (50%; n=14 of 28) and McNamara

(55.9%; n=19 of 34) stated they would have to take the bus to a community clinic.

- Easter had the highest number of cars as an option to travel to the community clinic (73.3%; n=22 of 30).
- Fifty-three percent (n=29 of 54) of Bonner parents would take a car to community clinic.
- Three parents (2.1%) said that they would have to take a taxi to a community clinic.

## **Attendance**

### ***Absence***

Most of the parents, 64.4 percent (n=94 of 146), said that their children were absent from school during the school year. This may seem high when compared with the 58 percent (n=188 of 324) in the student survey said that they were absent during the school year. However, the difference between the students and parents to this question was not statistically significant and may be due to the differences in study population size. Another reason for the discrepancy may be because parents sometimes reported for more than one child who participated in the survey. They may have reported on the child that was not in the study.

### ***Reasons for Absence***

Most often, the children were out due to illness an average of 2.1 days. Other reasons included vacation, an outside doctor's appointment, and bad weather.

## **Food and Nutrition**

### ***Breakfast at Home or School***

A little over half of all parents (53.4%; n=78 of 146) reported their children eat breakfast at home before going to school. Their breakfast consisted of protein products such as milk and/or eggs, whole fruit or fruit juice, and/or cold cereal in the morning. Almost

all of the students who did not eat breakfast at home, ate breakfast at school (39.7%; n=58). Seven percent (n=10 of 146) either did not take breakfast or did not answer the question.

- The majority of Bonner Elementary School parents (57.4%; n=31 of 54) said they gave their children breakfast at home.
- McNamara parents (55.9%; n=19 of 34) gave their children breakfast at home. Forty percent (n=14 of 34) reported their children had breakfast at school.
- Thirty percent (n=9 of 30) of Easter parents gave breakfast to their children. However, nearly all of the students who did not eat breakfast at home ate it at school. Only two parents did not indicate where their children had breakfast.
- The highest rate of children who had breakfast at home was from Elrod (67.9%; n=19 of 28).

### ***Eating Fruit***

Parents gave their children fruits at least once a day (93.2%; n=138 of 146). All the Easter parents said their children ate fruits at least once a day. Overall, only five parents from Bonner admitted they did not give their children fruit at least once a day.

- Most parents from Bonner (90.7%; n=49 of 54) said they gave their children fruit at least once a day.
- One hundred percent of Easter parents said they gave their children at least one fruit per day (n=30).
- Almost ninety percent (89.3%; n=25 of 28) of Elrod parents said they gave their children at least one fruit per day.
- Ninety-four percent (n=32 of 34) of parents from McNamara said they gave their children at least one fruit per day.

### ***Drinking Fruit Juice***

Eighty-two percent (82.9%; n=121 of 146) of parents reported they gave their children fruit juice at least once a day.

- Easter parents gave their children fruit juice at least once a day (96.7%; n=29 of 30).
- Bonner parents gave their children fruit juice at least once a day (85.2%; n=46 of 54).
- Elrod parents gave their children fruit juice at least once a day (78.6%; n=22 of 28).
- McNamara parents gave their children fruit juice at least once a day (70.6%; n=24 of 54).

### ***Eating Vegetables***

Parents gave their children vegetables with their meals (78.8%; n=115 of 146). The difference between Bonner and the other three schools was statistically significant ( $p<0.01$ ).

- The rate of parents who gave their children vegetables was lowest at Bonner where only two thirds (66.7%; n=36 of 54) of parents reported that they gave their children vegetables.
- The highest portion of parents who gave their children vegetables was at Easter with 96.7 percent (n=29 of 30).
- At Elrod and McNamara, 78.6 percent (n=22 of 28) and 82.4 percent (n=28 of 34) respectively, parents gave their children vegetables.

### ***After-School Snacks***

Three-quarters (76.7%; n=112 of 146) of parents gave their children after-school snacks consisting of chips, soda, cakes, and/or cookies. In general, African Americans (63.6%; n=14 of 22) were more inclined towards eating chips and other salty snacks than Hispanics (17.4%; n=19 of 109). This was statistically significant ( $p<0.01$ ).

- Bonner elementary had the least portion of after-school snack responses (64.8%; n=35 of 54).
- Elrod and Easter Elementary Schools had similar responses: 78.6 percent (n=22 of 28) and 76.7 percent (n=23 of 30) respectively.

- McNamara had the highest percentage (94.1%; n=32 of 34) of parents who gave their children after-school snacks.

### ***Women Infants and Children (WIC)***

Parents were asked if they had a child 1 to 5 years old who was a part of the Women Infants and Children's (WIC) program. Only one quarter (25.3%; n=37 of 146) said they had a WIC enrolled child.

### ***Health Education***

Almost all parents thought health education was important and useful (97.9%; n=143 of 146). Only three parents did not answer the question. The three parents represented Bonner, Elrod, and McNamara schools respectively.

### ***Program Satisfaction***

Most parents expressed satisfaction with the School-Based/Linked Health Program. Parents who gave ratings in both aspects of the program (70.5%; n=103 of 146) rated both medical and dental services as very good.

### ***Medical Clinic Satisfaction***

The medical component had an 87.7 percent (n=122 of 146) satisfaction rate with only one parent expressing dissatisfaction. Parents expressing medical clinic satisfaction were split almost equally among rating the clinic care good (33.6 percent; n=41 of 122), very good (35.2 percent; n=43), or excellent (31.1 percent; 38).

- One parent from McNamara expressed dissatisfaction with the medical clinic (2.9%; n=1 of 34). Another four parents (11.8%) did not answer the question. The rest of the parents (85.3%; n=29) said they were satisfied with the care at the medical clinic. Over half (52.2%; n=12 of 23) of the parents who rated their satisfaction said the service was very good.
- Easter parents unanimously expressed satisfaction with the medical clinic.

When asked how satisfied they were, two-thirds said the clinic was excellent (66.7%; n=20 of 30) with only one parent (3.3%) saying it was good.

- Elrod parents expressed the medical clinic services were good (42.9%; n=9 of 21). The rest of the parents said the clinic was either very good (33.3%; n=7) or excellent (23.8% n=5).
- Almost half of Bonner parents said the clinic was good (45.8%; n=22 of 48). Another third said that the clinic was very good (31.3%; n=15) and the rest said it was excellent (22.9%; n=11). Only 5 parents did not specify their satisfaction.

### ***Dental Clinic Satisfaction***

With the dental component, 83.6 percent (n=122 of 146) expressed satisfaction with only 2 parents (1.4%) expressing dissatisfaction. The rest of the parents did not state if they were satisfied. Overall, parents rated the clinic very good (40.2%; n=49 of 122) or excellent (29.5%; n=36). Twenty-four percent (n=30) rated the services as good.

- The highest rate of excellent responses came from Easter Elementary (63.3%; n=19 of 30).
- Bonner, Elrod, and McNamara rated very good: 43.6 percent (n=17 of 39), 40.9 percent (n=9 of 22) and 41.9 percent (n=13 of 31), respectively.
- The two parents who were not satisfied with the dental clinic both were from Bonner.



## Discussion and Comments

This discussion is to show that the program implementation is in accordance as planned. The primary aim of the School-Based/Linked Health Program is:

- To provide children in need of health services easy access to primary, preventive health services and comprehensive dental services
- To improve their academic performance
- To decrease absenteeism and increase attendance
- To decrease work loss days of their parents and guardians
- To provide children in need of psychological services easy access to counseling
- To increase the number of counseling sessions by social workers
- To improve health and fitness through the promotion of nutritious diet and physical activities

In other words, to improve the students' psychological, physical, and mental wellbeing.

### Ethnicity

The target population consisted primarily of Hispanic (74%) and African American children (22.2%) who are without health insurance (50.7%). Of this figure, 72.9% of Hispanic children at Bonner Elementary School, which is 99% Hispanic, were without health insurance. Easter Elementary School, with a population of half Hispanic and half African American, had 90% health insurance coverage. The

coverage is mainly Medicaid, which requires applicants to have a legal immigration status and is a barrier for illegal Hispanic families. Of these, 54.2 percent of students covered by Medicaid were Hispanic, and 33.3 percent were African American. From the In-depth Evaluation of 2000, 22.2 percent of students covered by Medicaid were Hispanic and 70.4 percent were African American (Table I).

The increase in the proportion of Hispanic Medicaid insurance coverage in this study has increased more than two folds. This increase could be due to the amnesty of 2000, when so many illegal aliens became eligible for residency, which qualified them for Medicaid. Reference is made to the research report of Dr. Stephen Klineberg, professor of sociology at Rice University, which shows that in the census of 2000, the Houston metropolitan area was more than 33 percent Hispanic and 18 percent African American. The city of Houston in the same year was 37 percent Hispanic and 25 percent African American, more Hispanic population than African American.

Remarkably, the 2000 Houston area survey of Dr. Klineberg's research showed that the increase in population was more evident in the younger age group.

### Socioeconomic Status

Socioeconomic Status also affects the acquisition of health insurance. Fifty-three percent of all parents were housewives. Parents who were employed (35%) were manual workers earning a bi-weekly wage

**Table I: Types of Insurance by Ethnicity**

	HMO/Private		Medicaid		Medicare		Other		All Types		Population	
	1999 <sup>1</sup>	2002 <sup>2</sup>	1999	2002	1999	2002	1999	2002	1999	2002	1999	2002
<b>African Am.</b>	48%	29%	70%	33%	0%	0%	10%	11%	49%	25%	32%	15%
<b>Hispanic</b>	41%	67%	22%	54%	100%	100%	76%	89%	41%	69%	61%	75%
<b>Asian</b>	7%	5%	2%	4%	0%	0%	10%	0%	5%	3%	4%	2%
<b>White</b>	5%	0%	6%	8%	0%	0%	5%	0%	5%	3%	3%	1%
<b>All</b>	n=61	n=21	n=54	n=24	n=4	n=1	n=21	n=18	n=140	n=64	n=263	n=146

<sup>1</sup> Figures from the In-depth Evaluation

<sup>2</sup> Figures from the Midterm Progress Evaluation

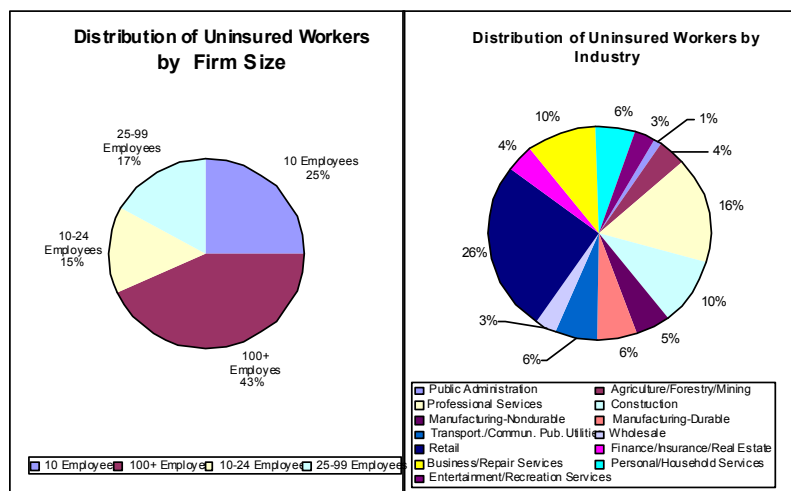
of less than six hundred dollars. In some cases, wages were augmented by other members in the family making a total amount of seven hundred dollars bi-weekly.

## Educational Status

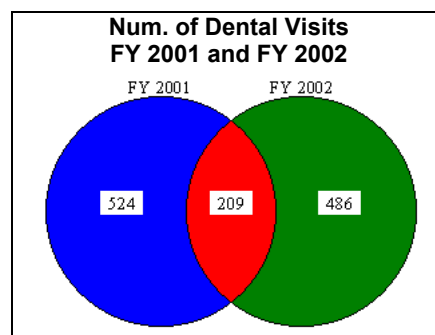
Forty-seven percent of all parents did not complete high school. Workers who earn low wages and who live in households with low incomes were among the more likely to be uninsured. Also, single workers and workers married to non-workers were more likely to be uninsured than members of two-earner couples<sup>13</sup>. African Americans and especially Hispanics were more likely than Whites to be uninsured. More than half of uninsured workers (59%) work for employers who did not sponsor health insurance, 21 percent were not eligible for their employer's plan, and around 20 percent declined the coverage they were offered at work (Figure 1a & 1b). This study population therefore, portrayed a disadvantaged population, low in socioeconomic status and in need of health services. *The Program is therefore serving the population it has intended to serve.*

## Access to Quality Primary, Preventive Health and Comprehensive Dental Services

One of the goals of the School-Based/Linked Health Program is to reduce barriers to health services. The In-depth Evaluation of 2000<sup>14</sup> revealed that 46.77% of all students were without health insurance and 71.35% of the uninsured had visited the clinics at least once. In this study, 84.6% of all students said it was easy to see the school clinic Pediatrician when they fell ill and 84% said it was easy to set a dental appointment. All of the students in the study used the school-based medical clinics an average of 2.2 visits and dental clinics 4.0 visits, respectively, during the period of the study. The more frequently the students used the dental clinics, the easier it was to set dental appointments ( $p=0.01$ ). Even though the number of students who accessed the dental clinic decreased from 524 in FY 2001 to 486 in FY 2002 (7%) (one of the dental clinics closed due to toxic mold infestation), 209 students attended the dental clinics both FY 2001 and 2002 (Figure 2). Therefore, having health services in schools gives disadvantaged children easy access to health care in an environment that is familiar and convenient. The increase in medical and dental visits shows us that the



**Figure 1 a and b**  
source: Urban Institute



**Figure 2**

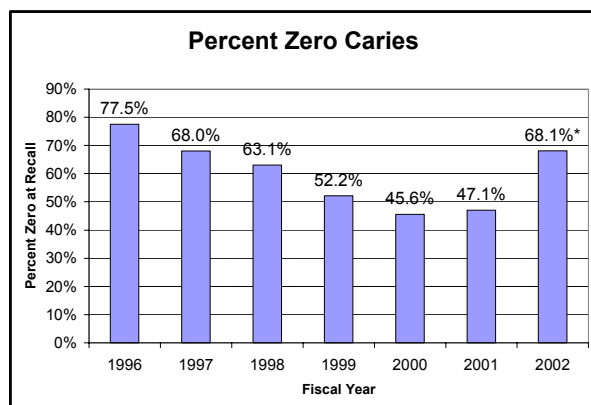
previously unmet needs of these students are now being fulfilled. In the United States, it was predicted that by the year 2000, \$60 billion dollars would be spent on 500 million dental visits<sup>15</sup>. Seventeen percent of children between two to four years of age have been diagnosed with dental caries. Older children have higher diagnoses with dental caries (Figure 3). These data show the necessity for dental care. The School-Based/Linked Health Program is using the percentage of zero caries in children at recall as the measurable outcome of progress in dental care (Figure 4).

The Center for Disease Control (CDC) notes that for low-income children, 80% dental caries are left untreated. Apart from treatment, the Program also provides preventive measures as applying protective dental sealants. According to the National Institute of Dental Research, National Institute of Health, sealing one tooth costs less than filling one tooth. Nationally, only 19% of all children have dental sealants<sup>16</sup>(Figure 5). In the in-depth Evaluation, almost 50% of the students who had sealants had them placed at the School Dental Clinic<sup>17</sup>. Thus, the cost effectiveness

of the Program's dental preventive care is obvious. The students pay only \$2.00 per visit for comprehensive dental care. Also the medical clinic provides preventive care which has a high priority in the Program, free of charge.

## Immunization Coverage

A total of 231 students were immunized in FY 2001-2002. In FY 2000-2001, 137 students were immunized resulting in an increase of 68.6% (Table II). Vaccines are responsible for preventing many infectious diseases that were once common in this country. Vaccines have reduced and in some cases eliminated many diseases that recently killed or harmed many infants, children and adults. Vaccine-preventable diseases have a costly impact, resulting in doctor's visits. Sick children can also cause parents to lose time from work, and

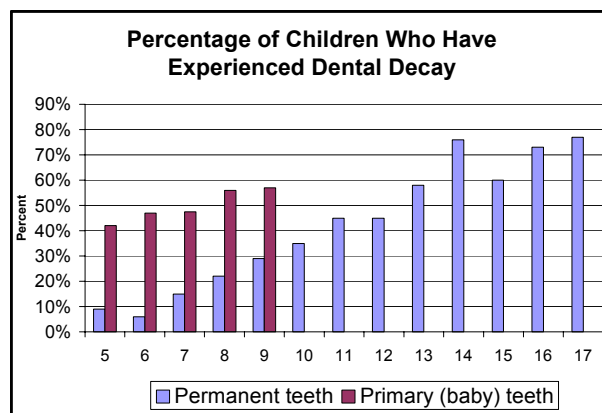


**Figure 4**

\*No data available since November 2001 due to the dental clinics switching to the Quick Recovery computer system.

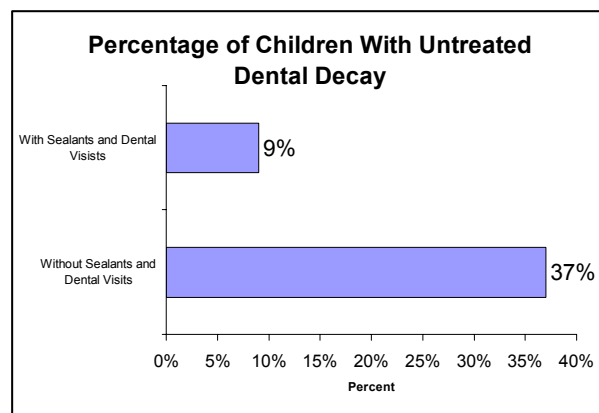
**Table II: School-Based Immunizations**

	Doses	Children	Per Child
FY 2001	259	137	1.89
FY 2002	445	231	1.93



**Figure 3**

Source: CDC's Oral Health Program



**Figure 5**

Source: CDC's Oral Health Program

affect the academic performance of children through absenteeism. The program takes these into consideration and has made great efforts towards protecting health and its cost benefit. The CDC has analyzed the benefit cost of commonly used vaccines (Table III). The cost of prevention (the savings of dollars invested) versus cost spent on treatment for measles, mumps and rubella vaccination has a ratio of 14.0 and that of pertussis 11.1. The program receives its vaccines from Vaccines for Children (VFC) Texas Department of Health (Appendix I). Immunization is administered to students without any cost to their parents and effectively reduces the substantial burden of preventable illness and injury. Prevention is not only cost-effective; it is fundamental to assuring quality of life.

### Academic Performance and Attendance

Problems with a student's health can affect his/her academic performance. The child who is distracted by hunger, or is malnourished, or has a toothache, or breathing problems, cannot focus on learning. Access and utilization to health services may eliminate these problems. School-based health centers are in the school environments where health education and services are provided to students, decreasing absenteeism and providing well childcare. Absenteeism

**Table III: Benefit-Cost Analysis of Commonly Used Vaccines<sup>1</sup>**

Vaccine	Savings per Dollar Invested <sup>2</sup>	
	Medical	Societal
DTaP <sup>3</sup>	8.5	24
MMR <sup>4</sup>	10.3	13.5
Hepatitis B		
Perinatal	1.3	14.5
Infant	0.5	3.1
Adolescent	0.5	2.2
Varicella	0.9	5.4
IPV <sup>5</sup>	3.03	5.45

<sup>1</sup> Source: CDC

<sup>2</sup> Includes work loss, death, and disability

<sup>3</sup> Diphtheria, Tetanus, Acellular, Pertussis

<sup>4</sup> Measles, Mumps, Rubella

<sup>5</sup> Inactivated Polio Vaccine

among students is clearly associated with school failure<sup>18</sup>. Research has shown that students who miss more than ten days of school in a ninety day semester have trouble remaining at their grade level<sup>19</sup>. In particular, children who are poor are two to three times more likely to miss school due to their illness<sup>20</sup>. In fact, a recent study found out that students utilizing public clinics miss entire days of school per appointment<sup>21</sup>.

The Program provides services at schools to deal with health problems, whereby the student does not miss a day's work and high attendance is maintained. Overall, 58% of all students were absent during the period of this study. Compared to the study in 2000, the number of students who reported absent due to illness dropped from 71.4% to 46.9%. Also the duration of illness decreased from 2.6 days to 1.4 days. The duration of absence was related to the student's academic achievement. These results were statistically significant ( $p < 0.01$ ). Academic achievement was assessed according to grade scores of excellent (A) to unsatisfactory (failing). The correlation of academic performance to absenteeism was statistically significant ( $p < 0.01$ ). Academic performance was significant according to gender. Girls were overall rated above average and boys as average ( $p < 0.01$ ). These scores are meeting the redefined goal of the program; to improve the academic performance from satisfactory to above average by the year 2004.

As absenteeism affects a student's academic performance, so also a parent or guardian who takes a child to a clinic or has to stay at home with a sick child will lose a day's work and will affect productivity. A recent survey of 500 working parents found that both mothers and fathers have missed work because of childcare problems. More companies offer employees subsidized in-home care for sick children or provide sick childcare facilities because these services reduce absenteeism and can save the company money<sup>22</sup>. A survey found most

workers who call in sick do so because of family issues, 27% in 1995 and 21% in 1999<sup>23</sup>.

During the study period, some parents had to take their children to another clinic due to appointments made or during times when the school clinics were closed. Fourteen percent (14.3%) took their children to another clinic and had to miss a day's work. However, the majority of parents who took their children to another clinic were house or homekeepers (57.1%). Visits to other clinics by appointment were seventy four percent and their wait time before attended to varied from less than 15 minutes (39%) to more than 30 minutes (28.6%). Eleven percent waited for 45 minutes and 10% for more than an hour. Fifty one percent of parents said they would travel by private car if they had to take their children to another clinic, 37% would travel by bus. At the School-Based Clinic, parents accompany their children to the clinic only at the first visit when they sign the consent form in person before their child is seen at the school clinic. Therefore more than ninety-percent workday loss to the parents could be avoided if their children use the school clinic and traveling time and waiting by parents is nullified.

## **Health Education**

The preponderance of health education in the School-Based/Linked Health Program has shown the impact on behavioral change in certain aspects on students, such as oral hygiene, nutrition and risk behavior is remarkable. A comprehensive health education is given to all students in the four schools by a qualified Senior Public Health Educator. Because many health problems relate to more than one behavioral risk factor as well as to social and environmental factors, the Program also works to improve health by addressing the multiple determinants of a health problem by parents and the community at Parent-Teacher

Association (PTA) meetings and at health fairs.

Good health relates to learning. While remaining committed, first to the academic achievement of each student, the focus of the school should be on the whole child, the holistic approach to learning. Basic health programs and services should be provided in the schools to meet the routine health and counseling needs of students. The program realizes that education and health are intrinsically intertwined. Over ninety-seven percent of all students said health education was important and useful. Several national surveys indicate parents and students overwhelmingly consider health education to be very important and useful<sup>24</sup>.

Eighty-five percent of parents in the study did not attend college. Forty-seven percent did not even complete high school. The educational status of the parents is even below that of the zip code area, which states in 2000 that 32% of the adult population did not receive a high school diploma. This being the case, the program considers health education a high priority if behavioral change is to occur in students. Thus, health education is given to all the students in the four schools including their parents at PTA meetings and at health fairs. A limited number of behaviors contribute markedly to today's major killers, such as heart disease, cancer, and injuries.

Every school day, 50 million young people attend more than 110,000 schools across the nation<sup>25</sup>. Given the size and accessibility of this population, schools can make an enormous, positive impact on the health of the nation. Schools can do more than perhaps any other single institution in society to help young people—and the adults they will become—to live healthier, longer, more productive lives.

Fifty-seven percent of students in the study said the health education program was excellent and 97.2% said health education

was important and useful. Now that a Senior Public Health Educator has been recently recruited into the program, the program hopes to increase the level of health education into a comprehensive health education program which includes nutrition, safety, oral health, and physical health and fitness. Additional education in these areas can create a positive attitude towards the health and well-being of students. The School-Based/Linked Health Program is committed to helping the students develop healthy habits through health education sessions scheduled throughout the school year.

### Behavioral Change

There has been an increase in behavioral change in teeth brushing. Ninety-six percent of students brushed their teeth at least once a day. An increase of 57% of students brushed their teeth twice a day as compared to last evaluation of 2000 which was 50.8%. Also, more students said they brushed their teeth three times a day (23.1%) as compared to 2000 evaluation (14.9%). Seventy-one percent flossed their teeth at least once a day as compared to 64.8% in the 2000 evaluation.

In 2000, the number of zero caries on recall was 45.6%. In 2002 it increased to 68.1% (fig 7,8,9).

### Food and Nutrition

A high percentage of all students (92.0%) reported they ate fruits everyday, 87% drank fruit juice, 91% drank at least a glass of milk everyday, and 83% had vegetables with their meals. Also fewer older students

(17.4%) had fast food during the week of investigation than younger children 38.0% (Table IV). It has been established fast food leads to obesity<sup>26</sup>.

The Surgeon General's *Call to Action to Prevent and Decrease Overweight and Obesity:2001* seeks to engage leaders from the diverse groups in addressing a public health issue: the health consequences of overweight and obesity<sup>27</sup>. The Health and Human Services (HHS) Secretary Tommy G. Thompson and Department of Agriculture Secretary Ann M. Veneman met with officials from the National Restaurant Association and the National Council of Chain Restaurants to begin a dialogue on ways the food and beverage industries can help Americans combat obesity, which has reached epidemic proportions. The HHS released new data indicating that nearly one third of all adults in the United States are now classified as obese, and that 15% of children and teens aged 6-19, close to 9 million children are over weight. Secretary Thompson noted overweight and obesity are at an all time high in the US. The public health consequences are enormous<sup>28</sup>. The HHS' new data reveals more than 10% of pre-school-aged children between the ages of 2 and 5 are overweight, up from 7% in 1994.

Efforts to reduce obesity among children is to decrease the amount of junk food served in the schools: to cut down on the soda, snacks, and sweets the children are eating. The government wants to require all food sold in schools meets nutrition standards. The junk food children eat at school and fast food locals is contributing to obesity and other health problems<sup>29</sup>. For example, excess weight and diabetes go hand in hand. Type two diabetes, usually a disease of adults, is now appearing in children. This study calculated the BMI\* of 505 students

**Table IV: Fast Food Eating During Week by Age Group**

Age Group	Once	Twice	Three +
5 to 6 (n=50)	26%	36%	38%
7 to 8 (n=103)	47%	31%	22%
9 to 10 (n=97)	62%	19%	20%
11 to 13 (n=46)	46%	37%	17%

\* Body Mass Index: Weight in Kilograms divided by the height squared in meters i.e. it is a single number that evaluates an

from their medical records during the study period. It revealed 55% of the children studied were determined to be normal weight. Forty-three percent were either overweight or at risk of becoming overweight. Twenty-four percent were overweight as compared to the national figure of 15% of children aged 6 to 19—close to 9 million children, three times that of the national figures HHS recently released<sup>30</sup>. The children's perception of their weight in the study described as 59 percent just right, 26.9 percent underweight and 13.6 percent overweight. Whereas 20 percent of 11 to 13 years perceived themselves to be overweight. The older students were more weight conscious than the younger students. To lose weight they did so by exercising (67%). Of these children, 18 percent were also dieting. Two percent took diet pills. This two percent of children were within the median age in the study 7-9 years. More has to be done to promote and maintain a positive attitude of students and parents toward a balanced diet. The Surgeon General has stated, if one is among the two of three Americans who do not smoke or drink excessively, one's choice of diet can influence one's long-term prospects more than any other action one might take<sup>31</sup>. Eight of the ten leading causes of deaths, including coronary heart disease, stroke, some types of cancer, and diabetes mellitus, are related to diet and alcohol<sup>32</sup>. Therefore, fervent efforts will be made on nutrition education to decrease the rate of obesity from 24% to 10%: less than the national figure of 15% by FY 2004.

### **Social Worker**

Until recently, the program has used its social workers to accompany the students on the buses to the dental clinics. This left the social workers with little time for counseling. About one-third of all students in the study (35%) have consulted with one

of the School-Based social workers about their personal problems during the period of this study as compared to 10% in the 2000 evaluation study.

At Easter and McNamara Elementary Schools, counseling of students is 33.6% and 30.1% respectively. At Bonner and Elrod, counseling of students is 18% and 17.7% respectively. Easter and Elrod schools were served by one of the two social workers assigned to the program. The other social worker served McNamara and Bonner. As of November 2002, the School-Based social work will be contracted to Family Services, a non-profit organization, which has operated in the Houston area for over ninety years. They will provide services for outreach, parenting and counseling. They will not accompany the students on the bus to the dental clinics. The transportation of students to the dental clinics will be the schools' responsibility.

The increase of 10% to 34.9% in this evaluation is encouraging. With this new system in place, the expected goal of 50% counseling by 2004 appears to be achievable.

### **Health and Fitness**

In recent years health and fitness awareness have increased. The benefits of reducing sedentary lifestyles and promoting physical activities have become increasingly apparent. The Surgeon General's report on physical activities and health emphasizes that regular participation in moderate physical activity is an essential component of a healthy lifestyle<sup>33</sup>. Comprehensive school health programs have the potential to slow this age-related decline in physical activity and help students establish lifelong, healthy physical activity patterns<sup>34,35</sup>.

individual's weight status in relation to height.

## **Health Benefits of Physical Activity and Physical Fitness**

Research has shown the association between physical activity and health among young people<sup>36</sup>. Evidence shows that physical activity results in some health benefit for children and adolescents. For example, regular physical activity improves aerobic endurance and muscular strength<sup>37</sup>. Among healthy young people, physical activities and physical fitness may favorably affect risk factors for cardiovascular diseases (e.g., body mass index, among others<sup>38</sup>) and increase physical fitness in obese children<sup>39</sup>.

In the study, the students participated in a wide variety of sports activities with an average of two activities. The most popular sports activities were soccer (38%), running (36%), basketball (26%), and cycling (25%). Almost all students participated in PE Classes (95%). The majority of the students said PE is important and useful. The School/Based-Linked Health Program is meeting the physical as well as academic needs of the students by building the student's ability to engage in exercise (i.e., self-efficacy), having a positive attitude towards physical education and enjoying physical activities. Perceived benefits from being involved in sports is positively associated with increased physical activity among young people<sup>40</sup>. These perceived benefits include excitement and having fun; learning and improving skills; staying in shape; improving appearance; and increasing strength, endurance, and flexibility<sup>41</sup>.



## Conclusion

This report presents a heuristic method that illustrates activities performed in the implementation of the Program proceeds right direction as planned, is meeting the goals of the program, and is producing the desired outcomes. It is commendable that social workers will no longer accompany the students to the dental clinic. They can now do social work and counseling in order to meet the goal set by 2004. Obesity will be addressed as a high priority in the program. More frequent and higher doses of nutrition education will be given to parents and students to solve this problem.

In conclusion, the Program has gathered from the Process evaluation the following data toward meeting the redefined goals of the Program:

- Access to health care has increased from 70 to 84 percent.
- Academic performance has improved from satisfactory (D) to average (C) for boys and B average for girls.
- Influence of change in behavioral habits has increased from 75 to 97.2 percent.
- Counseling sessions provided by social workers have increased from 10 to 34 percent.
- Zero caries has increased to 68 percent.

The redefined goals are as follows:

- To improve easy access to primary and preventive health care for children in need of health services from 70% to 85% of uninsured children in the targeted schools by the year 2004;
- To assure that students who participate in the program improve their academic performance from an average of satisfactory to good by the year 2004;
- To increase the influence of change in behavioral habits through health and dental education from 75% to 85% of students by the year 2004;
- To improve access to counseling sessions provided by social workers to

students and families from 10% to 50%, and to increase the number of home visits from 0% to 30% by the year 2004; and

- To provide comprehensive dental services and increase the number of students with zero caries from 55% to 70% by the year 2004.

It is clear that the program is going in the right direction. It is expected program goals will be met by the year 2004.

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## Table of Appendixes

Appendix A: SBHC School Profiles 2000-2001	34
Appendix B: Census Profiles	38
Appendix C: School-Based Medical Clinic New Patient Flow Chart	42
Appendix D: HISD School-Based Providers	43
Appendix E: HISD Sample of School Menu	47
Appendix F: Student Survey Data Tables	51
Appendix G: Student Charts and Graphs	60
Appendix H: Parent Survey Data Tables	66
Appendix I: Parent Charts and Graphs	73
Appendix J: Childhood Immunizations	77
Appendix K: Nutrition & Fitness Information	80
Appendix L: WIC Child Nutritional Risk Codes	85

## Appendix A: SBHC School Profiles 2000-2001<sup>1</sup>

### Bonner Elementary School 8100 Elrod • Houston, TX 77017 • 713-943-5740

#### Students

<b>Enrollment</b>		<b>Ethnicity</b>	
Total	864	African American	2%
Kindergarten & below	22	Asian	3%
<b>Gender</b>		Hispanic	93%
Female	46%	Native American	<1%
Male	54%	White	2%
<b>Students by Program</b>			
Bilingual	59%	Free/Reduced Lunch	97%
ESL	3%	Limited English (LEP)	67%
Gifted/Talented	10%	At-Risk <sup>2</sup>	77%
Special Education	10%	Grades Served	EE <sup>3</sup> -5
Title I <sup>4</sup>	100%		

#### Teachers

<b># of Teachers</b>		<b>Ethnicity</b>	
<b>Gender</b>		African American	15%
Female	85%	Asian	4%
Male	15%	Hispanic	59%
<b>Years of Experience</b>		Native American	0%
Average Experience	10yrs.	White	23%
5 or less	33%	<b>Advanced Degrees</b>	
6 to 10	33%	Master's	33%
11 or more	33%	Doctorate	0%
<b>Teachers by Program</b>			
Regular	31%	Gifted/Talented	0%
Bilingual/ESL	51%	Special Education	18%
Compensatory Ed. <sup>5</sup>	0%	Other	0%

#### Staff

Counselors	1	Other Professional Staff	5
Assistant Principals	1	Educational Aides	20

<sup>1</sup> Source: District and School Profiles 2000-2001. Houston Independent School District (HISD)

<sup>2</sup> Student is considered at risk of dropping out of school if he/she has either failed any section of TAAS at last attempt or is LEP.

<sup>3</sup> Early Education

<sup>4</sup> Federally funded program that provides supplementary instruction in reading/language arts, mathematics, and bilingual/ESL for disadvantaged students in selected public schools. HISD grants all students to enroll in Title I when 75% or more of the student population comes from low-income families.

<sup>5</sup> Programs and instructional services designed for at-risk students.

**Easter Elementary School**  
**4435 Weaver Rd. • Houston, TX 77016 • 713-696-6050**

**Students**

<b>Enrollment</b>		<b>Ethnicity</b>	
Total	259	African American	61%
Kindergarten & below	24	Asian	0%
<b>Gender</b>		Hispanic	38%
Female	46%	Native American	0%
Male	54%	White	1%
<b>Students by Program</b>			
Bilingual	9%	Free/Reduced Lunch	98%
ESL	2%	Limited English (LEP)	29%
Gifted/Talented	5%	At-Risk	42%
Special Education	9%	Grades Served	Prek <sup>1</sup> -5
Title I	100%		

**Teachers**

<b># of Teachers</b>		<b>Ethnicity</b>	
11		African American	64%
<b>Gender</b>		Asian	9%
Female	82%	Hispanic	9%
Male	18%	Native American	0%
<b>Years of Experience</b>		White	18%
Average Experience	14yrs.	<b>Advanced Degrees</b>	
5 or less	45%	Master's	27%
6 to 10	9%	Doctorate	0%
11 or more	45%		
<b>Teachers by Program</b>			
Regular	73%	Gifted/Talented	0%
Bilingual/ESL	9%	Special Education	18%
Compensatory Ed.	0%	Other	0%

**Staff**

Counselors	0	Other Professional Staff	4
Assistant Principals	0	Educational Aides	6

<sup>1</sup> Pre-Kindergarten students must be identified as LEP or eligible for the free/reduced lunch program.

**Elrod Elementary School**  
6230 Dumfries • Houston, TX 77096 • 713-778-3330

**Students**

<b>Enrollment</b>		<b>Ethnicity</b>	
Total	910	African American	51%
Kindergarten & below	16	Asian	3%
<b>Gender</b>		Hispanic	43%
Female	47%	Native American	0%
Male	53%	White	2%

**Students by Program**

Bilingual	24%	Free/Reduced Lunch	94%
ESL	6%	Limited English (LEP)	33%
Gifted/Talented	1%	At-Risk	57%
Special Education	3%	Grades Served	PreK-5
Title I	100%		

**Teachers**

<b># of Teachers</b>		<b>Ethnicity</b>	
47		African American	49%
<b>Gender</b>		Asian	0%
Female	83%	Hispanic	17%
Male	17%	Native American	0%
<b>Years of Experience</b>		White	34%
Average Experience	13yrs	<b>Advanced Degrees</b>	
5 or less	21%	Master's	40%
6 to 10	23%	Doctorate	2%
11 or more	55%		

**Teachers by Program**

Regular	47%	Gifted/Talented	13%
Bilingual/ESL	26%	Special Education	11%
Compensatory Ed.	4%	Other	0%

**Staff**

Counselors	1	Other Professional Staff	7
Assistant Principals	2	Educational Aides	9

**McNamara Elementary School**  
8714 McAvoy • Houston, TX 77074 • 713-778-3460

**Students**

<b>Enrollment</b>		<b>Ethnicity</b>	
Total	840	African American	18%
Kindergarten & below	21	Asian	4%
<b>Gender</b>		Hispanic	75%
Female	47%	Native American	0%
Male	53%	White	3%

**Students by Program**

Bilingual	45%	Free/Reduced Lunch	94%
ESL	17%	Limited English (LEP)	62%
Gifted/Talented	5%	At-Risk	73%
Special Education	6%	Grades Served	PreK-5
Title I	100%		

**Teachers**

<b># of Teachers</b>		<b>Ethnicity</b>	
38		African American	32%
<b>Gender</b>		Asian	13%
Female	87%	Hispanic	32%
Male	13%	Native American	0%
<b>Years of Experience</b>		White	24%
Average Experience	15yrs	<b>Advanced Degrees</b>	
5 or less	29%	Master's	39%
6 to 10	21%	Doctorate	0%
11 or more	50%		

**Teachers by Program**

Regular	34%	Gifted/Talented	3%
Bilingual/ESL	55%	Special Education	0%
Compensatory Ed.	8%	Other	0%

**Staff**

Counselors	1	Other Professional Staff	2
Assistant Principals	1	Educational Aides	8



## Appendix B: Census Profiles

### 2000 Census Profile for Zip Code 77017 (Bonner Elementary)

Population: 32,823 • Male: 51% • Female: 49%

#### AGES

	#	%
Under 5 years	3,283	10%
5 to 9 years	3,157	9.6%
10 to 14 years	2,889	8.8%
15 to 19 years	2,752	8.4%
20 to 24 years	2,795	8.5%
25 to 34 years	5,506	16.8%
35 to 44 years	4,748	14.5%
45 to 54 years	3,198	9.7%
55 to 59 years	1,005	3.1%
60 to 64 years	781	2.4%
65 to 74 years	1,434	4.4%
75 to 84 years	950	2.9%
85 years and over	325	1%

Median age (years)= 28

#### RACE

	#	%
White	15,878	48.4%
Black or African American	968	2.9%
American Indian and Alaska Native	168	0.5%
Asian	1,302	4%
Native Hawaiian and Other Pacific Islander	26	0.1%
Some other race	13,293	40.5%
Two or more races	1,188	3.6%

#### HISPANIC OR LATINO AND RACE

	#	%
Total population	32,823	100%
Hispanic or Latino (of any race)	24,397	74.3%
Mexican	19,485	59.4%
Puerto Rican	79	0.2%
Cuban	63	0.2%
Other Hispanic or Latino	4,770	14.5%
Not Hispanic or Latino	8,426	25.7%

#### HOUSING OCCUPANCY

	#	%
Occupied housing units	9,654	94.1%
Vacant housing units	603	5.9%
For occasional use	29	0.3%

#### RELATIONSHIP

	#	%
In households	32,628	99.4%
Householder	9,654	29.4%
Spouse	5,401	16.5%
Child	12,228	37.3%
Own child under 18 years	9,450	28.8%
Other relatives	3,783	11.5%
Under 18 years	1,310	4%
Nonrelatives	1,562	4.8%
Unmarried partner	449	1.4%
In group quarters	195	0.6%
Institutionalized pop.	0	0%
Noninstitutionalized pop.	195	0.6%

#### HOUSEHOLDS BY TYPE

	#	%
Family households (families)	7,441	77.1%
With own children under 18 years	4,506	46.7%
Married-couple family	5,401	55.9%
With own children under 18 years	3,448	35.7%
Female householder, no husband present	1,357	14.1%
With own children under 18 years	776	8%
Nonfamily households	2,213	22.9%
Householder living alone	1,788	18.5%
Householder 65 years and over	731	7.6%
Average household size	3.38	
Average family size	3.88	
Total households	9,654	100%

#### HOUSING TENURE

	#	%
Owner-occupied housing units	5,300	54.9%
Renter-occupied housing units	4,354	45.1%
Occupied housing units	9,654	100%

## 2000 Census Profile for Zip Code 77016 (Easter Elementary)

Population: 29,753 • Male:47% • Female: 53

### AGES

	#	%
Under 5 years	2,070	7.0%
5 to 9 years	2,473	8.3%
10 to 14 years	2,517	8.5%
15 to 19 years	2,447	8.2%
20 to 24 years	2,041	6.9%
25 to 34 years	3,621	12.2%
35 to 44 years	3,834	12.9%
45 to 54 years	3,751	12.6%
55 to 59 years	1,903	6.4%
60 to 64 years	1,766	5.9%
65 to 74 years	2,218	7.5%
75 to 84 years	840	2.8%
85 years and over	272	0.9%

Median age (years)=34

### RACE/ETHNICITY

	#	%
White	2,992	10.1%
Black or African American	23,650	79.5%
American Indian and Alaska Native	86	0.3%
Asian	73	0.2%
Native Hawaiian and Other Pacific Islander	7	0.0%
Some other race	2,605	8.8%
Two or more races	340	1.1%

### HISPANIC OR LATINO AND RACE

	#	%
Hispanic or Latino (of any race)	5,084	17.1%
Mexican	4,182	14.1%
Puerto Rican	14	0.0%
Cuban	21	0.1%
Other Hispanic or Latino	867	2.9%
Not Hispanic or Latino	24,669	82.9%

### HOUSING OCCUPANCY

	#	%
Occupied housing units	9,689	91.7%
Vacant housing units	874	8.3%
For occasional use	16	0.2%

### RELATIONSHIP

	#	%
In households	29,536	99.3%
Householder	9,689	32.6%
Spouse	3,959	13.3%
Child	9,890	33.2%
Own child under 18 years	5,638	18.9%
Other relatives	4,915	16.5%
Under 18 years	2,735	9.2%
Nonrelatives	1,083	3.6%
Unmarried partner	407	1.4%
In group quarters	217	0.7%
Institutionalized pop.	92	0.3%
Noninstitutionalized pop.	125	0.4%

### HOUSEHOLDS BY TYPE

	#	%
Family households (families)	7,348	75.8%
With own children under 18 years	2,802	28.9%
Married-couple family	3,959	40.9%
With own children under 18 years	1,460	15.1%
Female householder, no husband present	2,785	28.7%
With own children under 18 years	1,158	12.0%
Nonfamily households	2,341	24.2%
Householder living alone	2,066	21.3%
Householder 65 years and over	697	7.2%
Average household size	3.05	
Average family size	3.55	
Total households	9,689	100.0%

### HOUSING TENURE

	#	%
Owner-occupied housing units	6,671	68.9%
Renter-occupied housing units	3,018	31.1%
Occupied housing units	9,689	100.0%

## 2000 Census Profile for Zip Code 77096 (Elrod Elementary)

Population: 33,987 • Male: 47% • Female: 52%

### AGES

	#	%
Under 5 years	2,476	7.3%
5 to 9 years	2,477	7.3%
10 to 14 years	2,254	6.6%
15 to 19 years	1,968	5.8%
20 to 24 years	1,957	5.8%
25 to 34 years	4,734	13.9%
35 to 44 years	5,307	15.6%
45 to 54 years	4,538	13.4%
55 to 59 years	1,568	4.6%
60 to 64 years	1,286	3.8%
65 to 74 years	2,917	8.6%
75 to 84 years	2,062	6.1%
85 years and over	443	1.3%

Median age (years)=37

### RACE

	#	%
White	22,389	65.9%
Black or African American	6,593	19.4%
American Indian and Alaska Native	66	0.2%
Asian	1,980	5.8%
Native Hawaiian and Other Pacific Islander	4	0.0%
Some other race	2,312	6.8%
Two or more races	643	1.9%

### HISPANIC OR LATINO AND RACE

	#	%
Hispanic or Latino (of any race)	4,931	14.5%
Mexican	2,813	8.3%
Puerto Rican	109	0.3%
Cuban	112	0.3%
Other Hispanic or Latino	1,897	5.6%
Not Hispanic or Latino	29,056	85.5%

### HOUSING OCCUPANCY

	#	%
Occupied housing units	14,178	96.5%
Vacant housing units	511	3.5%
For occasional use	13	0.1%

### RELATIONSHIP

	#	%
In households	33,879	99.7%
Householder	14,178	41.7%
Spouse	7,037	20.7%
Child	9,658	28.4%
Own child under 18 years	7,905	23.3%
Other relatives	1,716	5.0%
Under 18 years	515	1.5%
Nonrelatives	1,290	3.8%
Unmarried partner	538	1.6%
In group quarters	108	0.3%
Institutionalized pop.	23	0.1%
Noninstitutionalized pop.	85	0.3%

### HOUSEHOLDS BY TYPE

	#	%
Family households (families)	9,319	65.7%
With own children under 18 years	4,456	31.4%
Married-couple family	7,037	49.6%
With own children under 18 years	3,181	22.4%
Female householder, no husband present	1,799	12.7%
With own children under 18 years	1,069	7.5%
Nonfamily households	4,859	34.3%
Householder living alone	4,175	29.4%
Householder 65 years and over	1,470	10.4%
Average household size	2.39	
Average family size	2.98	
Total households	14,178	100.0%

### HOUSING TENURE

	#	%
Owner-occupied housing units	7,496	52.9%
Renter-occupied housing units	6,682	47.1%
Occupied housing units	14,178	100.0%

## 2000 Census Profile for Zip Code 77074 (McNamara Elementary)

Population: 39, 156 • Male:49% • Female: 51%

### AGES

	#	%
Under 5 years	3,749	9.6%
5 to 9 years	3,190	8.1%
10 to 14 years	2,609	6.7%
15 to 19 years	2,692	6.9%
20 to 24 years	3,410	8.7%
25 to 34 years	7,264	18.6%
35 to 44 years	6,190	15.8%
45 to 54 years	4,092	10.4%
55 to 59 years	1,296	3.3%
60 to 64 years	999	2.6%
65 to 74 years	1,781	4.5%
75 to 84 years	1,283	3.3%
85 years and over	604	1.5%
Median age (years)=30		

### RACE/ETHNICITY

	#	%
White	18,304	46.7%
Black or African American	7,983	20.4%
American Indian and Alaska Native	163	0.4%
Asian	2,792	7.1%
Native Hawaiian and Other Pacific Islander	36	0.1%
Some other race	7,824	20.0%
Two or more races	2,057	5.3%

### HISPANIC OR LATINO AND RACE

	#	%
Hispanic or Latino (of any race)	16,936	43.2%
Mexican	10,017	25.6%
Puerto Rican	175	0.4%
Cuban	271	0.7%
Other Hispanic or Latino	6,473	16.5%

### HOUSING OCCUPANCY

	#	%
Occupied housing units	13,853	95.0%
Vacant housing units	727	5.0%
For occasional use	21	0.1%
Total housing units	14,580	100.0%

### RELATIONSHIP

	#	%
In households	38,243	97.7%
Householder	13,853	35.4%
Spouse	5,913	15.1%
Child	12,126	31.0%
Own child under 18 years	9,748	24.9%
Other relatives	3,780	9.7%
Under 18 years	1,078	2.8%
Nonrelatives	2,571	6.6%
Unmarried partner	777	2.0%
In group quarters	916	2.3%
Institutionalized population	683	1.7%
Noninstitutionalized population	233	0.6%
Total population	39,159	100.0%

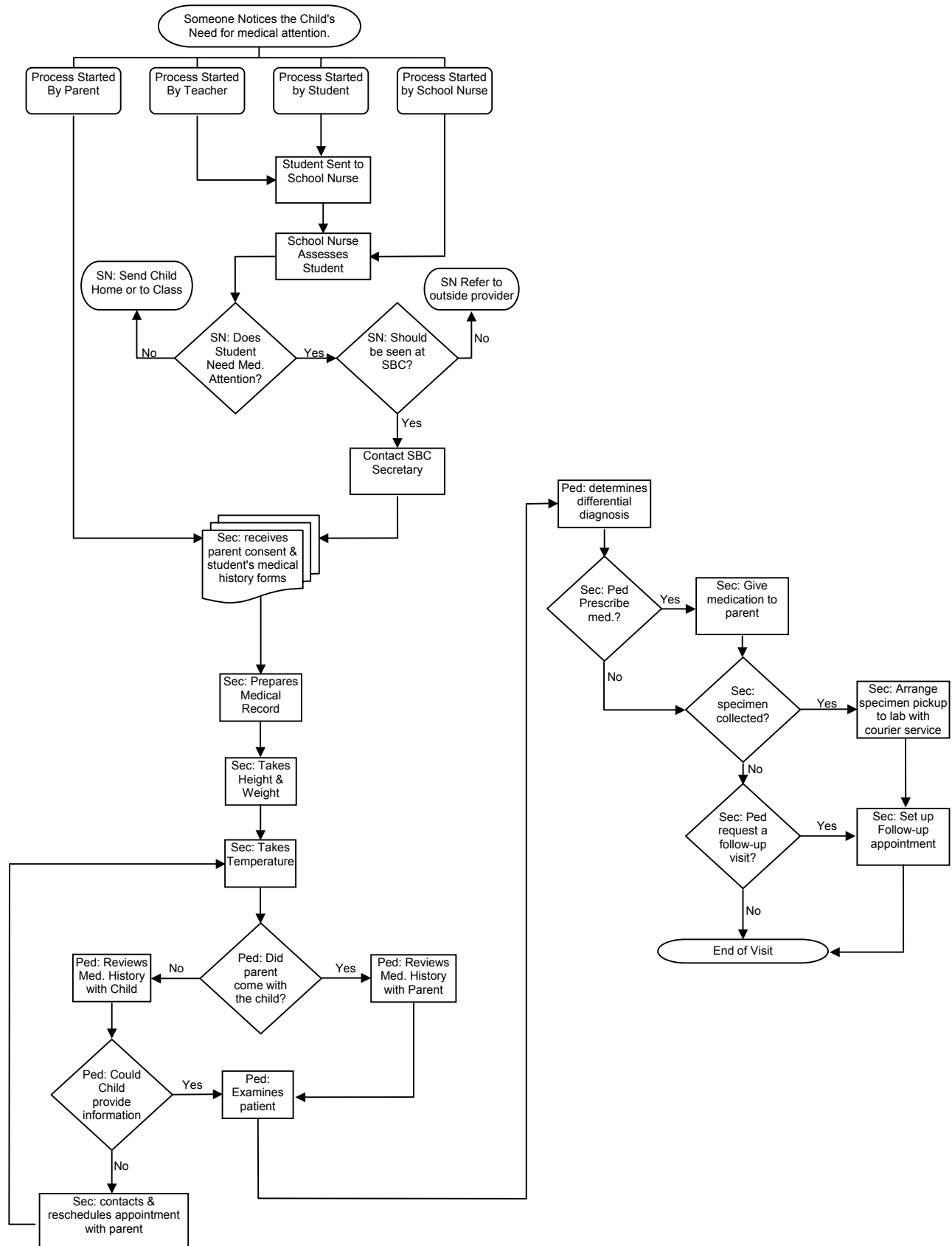
### HOUSEHOLDS BY TYPE

	#	%
Family households (families)	9,054	65.4%
With own children under 18 years	5,148	37.2%
Married-couple family	5,913	42.7%
With own children under 18 years	3,369	24.3%
Female householder, no husband present	2,248	16.2%
With own children under 18 years	1,396	10.1%
Nonfamily households	4,799	34.6%
Householder living alone	3,812	27.5%
Householder 65 years and over	965	7.0%
Average household size	2.76	
Average family size	3.41	
Total households	13,853	100.0%

### HOUSING TENURE

	#	%
Owner-occupied housing units	5,061	36.5%
Renter-occupied housing units	8,792	63.5%
Occupied housing units	13,853	100.0%

## Appendix C: School-Based Medical Clinic New Patient Flow Chart



## Appendix D: HISD School-Based Providers

Provider/ Contact Information	Clinic Name	Schools Served	Number Students
<b>Baylor College of Medicine/ Texas Children's Hospital</b>  Kathy Weldon (713-917-3581)	T. H. Rogers School Based Program	T. H. Rogers School	737
	Austin High School Clinic	Austin HS	2,082
<b>Baylor College of Medicine Teen Clinic</b>  Dr. Peggy Smith (713-873-3601)  Kathy Sullivan- Coordinator (281-820-2995)  Judy Beard- Calvalcade (713-673-1655)  Juanita Campbell- LBJ (713-556-5612)  Angela Jackson- Cullen Pediatric (713-440-7313)	Ben Taub Teen Clinic	Attucks MS Bellaire HS Jones HS Lamar HS Madison HS Sharpstown HS Sterling HS Thomas MS Westbury HS Woodson MS Worthing HS Yates HS	19,946
	Calvalcade/LBJ Clinic	Davis H. S.* Fleming M. S.* Furr H. S.* Holland M. S.* Houston H.S.* Kashmere H.S.* Key M. S. * Marshall M. S. Terrell Alt.* Wheatley H.S.* Williams M.S.*	12,350
	Cullen Pediatric & Adolescent Center	Attucks M.S. * Cullen M.S. * Jones H.S. * Sterling H.S. * Thomas M.S. * Woodson M.S. * Worthing HS* Yates H.S. *	8,459
	Lawn Teen Clinic	BT Washington Fleming MS Furr HS Kay Ongoing Marshall MS Ryan MS S. Houston HS Waltrip HS	9,779

<b>Provider/ Contact Information</b>	<b>Clinic Name</b>	<b>Schools Served</b>	<b>Number Students</b>
<b>City of Houston Health and Human Services</b>  Dr. Leonora Lartson (713-794-9421)	Bonner El. School Clinic	Bonner El**	875
	Elrod El. School Clinic	Elrod El**	731
	Easter El. School Clinic	Easter El**	244
	McNamara El School Clinic	McNamara El**	839
<b>Communities in School/ U. T. School of Dentistry</b>  Angelica Adams (713-654-1551)	Project Move Mobile Dental Clinic	Douglass Elem. Turner Elem.	890
<b>Community Partners</b>  Suzanne Burkholder Ruthie Mitchell (713-222-8788)	Community Partners School Based Clinic at Hogg Middle School	8th Ave. El. * Brock El. * Browning El.* Burrus El. * Crockett El. * Field El. * Hamilton MS* Harvard El. * Helms El. * Hogg MS * Love Elem. * Memorial El. * Milam El. * Reagan H.S. * Stevenson El* Travis El. *	9,276

Provider/ Contact Information	Clinic Name	Schools Served	Number Students
<b>Harris County Hospital District</b>  Katie Lawrence (713-873-4894)  Elizabeth Gaspar - Scarborough (713-696-2731)  Melissa Denby- Robert Carrasco (713-226-2632)	Community Partners School Based Clinic on H. P. Carter Campus	Atherton El.* Bruce El. * C. Martinez El * Crawford El. * Davis H.S.* Dogan El. * E. O. Smith* Fleming M.S.* H. P. Carter* Jefferson El. * Jordan H.S.* Kashmere HS* Key M.S.* Looscan El. * Marshall M.S.* McReynolds MS* N.Henderson El * Ross El. * Ryan El. * Scott El. * Terrell Alt.* Wheatley HS*	13610
	Nuestra Clinica @ Jackson MS	Burnet El. Lantrip El. Cage El. Henderson, J. P. Carrillo El.	4072
	Scarborough Elem. School Based Clinic	Barrick El. Berry El. Coop El. Dechaumes El. Durkee El. Fonville MS Herrera El. Janowski El. Lyons El. M. Garcia El. Northline El. Patrick Henry MS Roosevelt El. Sam Houston HS Scarborough El.	14,472
	Robert Carrasco at Sherman Elementary	Sherman El Ryan El. Lee El. Davis HS Lamar El. Crockett El. C. Martinez El. Marshall MS	5400



Provider/ Contact Information	Clinic Name	Schools Served	Number Students
<b>HISD West District</b>  Grace Jennings (713-773-6181)	Youth – Family Center Mental Health Services	Ashford Askew Bonham Briargrove Briarmeadow Bush Emerson Grady MS Lee HS McNamara Neff Pilgrim Piney Point Revere MS Sands Point Shadowbriar Shadowbriar MS Sharpstown HS Sharpstown MS Sharpview Walnut Bend Westside HS White	22329
<b>Junior League</b>  Kathryn Wiefe (713-303-5316)	SuperKids Mobile Pediatric Clinic	Cunningham EI Piney Point EI Pilgrim EI Braeburn	3496
<b>Memorial Hermann Health Care</b>  Deborah Gannelin (713-776-5982)	Jane Long Middle School Clinic  Burbank Middle School Clinic	Benavidez EI Long MS Sutton Elem.  Burbank EI * Burbank MS* Janowski EI*	3962  2840
<b>Mobile Medical-Dental Outreach</b>  Roosevelt Alcorn (281-485-1026)	Mobile Medical-Dental Outreach Clinic	Services available to all schools identified as in need.	7474
<b>Rusk School Health Promotion Project</b>  Laura Kennedy (713-227-5160)	Rusk Clinic	Tijerina EI Rusk EI Anson Jones EI Dodson EI <i>All schools in Austin HS feeder pattern</i>	13665

## Appendix E: HISD Sample of School Menu<sup>1</sup>

### Elementary School Breakfast Schedule<sup>2</sup>

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>
				<b>1</b> <b>Professional Development Day</b>
<b>4</b> Assorted Dry Cereals Waffle w/syrup Breakfast Smokies	<b>5</b> Breakfast Burger Cinnamon Roll Crispy Hashbrown Patty	<b>6</b> Pancake on a stick w/syrup Breakfast Burger Crispy Hashbrown Patty	<b>7</b> Pancake on a Stick w/syrup Breakfast Burger Crispy Hashbrown Patty	<b>8</b> Assorted Dry Cereals Morning Sausage & Cheese Roll Crispy Hashbrown Patty
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
<b>S P R I N G B R E A K</b>				
<b>18</b> Assorted Dry Cereals Waffle w/syrup Turkey Sausage Link	<b>19</b> Honeybun Breakfast Burger Breakfast Smokies	<b>20</b> Assorted Dry Cereals Biscuit w/ Jelly Turkey Sausage Patty	<b>21</b> Breakfast Burger Pancake on a Stick Crispy Hashbrown Patty	<b>22</b> Assorted Dry Cereals Morning Sausage Roll Crispy Hashbrown Patty
<b>25</b> Assorted Dry Cereals French Toast W/syrup Turkey Sausage	<b>26</b> Breakfast Burger Danimal's Fruity Yogurt w/Peaches Breakfast Smokies	<b>27</b> Assorted Dry Cereals Morning Sausage Roll Crispy Hashbrown Patty	<b>28</b> Breakfast Taco Breakfast Burger Crispy Hashbrown Patty	<b>29</b> <b>Spring Holiday</b>




<sup>1</sup> Source: HISD website <http://www.houstonisd.org>

<sup>2</sup> All meals served with a choice of milk or fruit juice

## Elementary School Lunch Schedule<sup>1</sup>

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>
				<b>1</b> <b>Professional Development Day</b>
<b>4</b> Chicken Nuggets & Roll BBQ Beef Sandwich Potato Wedges Vegetable Medley Pickle Spear Sliced Peaches	<b>5</b> Crispy Beef Tacos Tony's Pepperoni Pizza Refried Beans Shredded Lettuce & Tomatoes Strawberry Cake w/icing	<b>6</b> Roast Turkey w/Gravy Roll Peanut Butter & Jelly Sandwich Mashed Potatoes Tender Green Beans Sweet Potato Pie	<b>7</b> Chili Cheese Dog Tony's Pepperoni Pizza Crispy Potato Wedges Mixed Vegetables Pear Halves	<b>8</b> Fish Shapes & Rolls Sloppy Joe Sweet Corn Carrot Coins Blue Bell Mini Krunch Bar
<b>11</b>	<b>12</b> <b>S P R I N G</b>	<b>13</b>	<b>14</b> <b>B R E A K</b>	<b>15</b>
<b>18</b> Chicken Nuggets & Roll Chicken Fried Stake w/Gravy & Roll Mashed Potatoes Green Beans Sliced Peaches	<b>19</b> Beef Enchiladas Tony's Pepperoni Pizza Shredded Lettuce & Tomatoes Spanish Rice Chilled Pineapple	<b>20</b> Charbroiled Hamburger Chicken Patty Potato Wedges Chilled Vegetable Stack Mixed Fruit	<b>21</b> Submarine Sandwich W/Chicken Noodle Soup Tony's Pepperoni Pizza Sweet Corn Pickle Spear Blue Bell Mini Moo	<b>22</b> Crunchy Fish Sticks Nachos W/Picadillo White Rice Carrots Coin Baked Apple Slices
<b>25</b> Golden Corn Dog Tony's Pepperoni Pizza Potato Wedges Mixed Vegetables Sliced Pears	<b>26</b> Spaghetti & Meatballs W/ Crust Cheese Sticks Ham & Cheese Sandwich Tossed Salad, Apple Vanilla Cookie	<b>27</b> Chili Cheese Dog Tony's Pepperoni Pizza Crispy Potato Wedges Sweet Corn Slice Peaches	<b>28</b> BBQ Chicken & Roll Soft Beef Tacos Refried Beans Lettuce & Tomatoes Chilled Pineapple	<b>29</b>  <b>Spring Holiday</b>



<sup>1</sup> All meals served with milk

## ***Giving Away Free Sodas During School Lunches Evades Congressional Ban On Selling Sodas During School Lunches***

In some schools -- including certain schools in California, Florida, Michigan, and Utah -- free sodas are being given away as part of school lunches (and sometimes even as part of the school breakfast). This practice evades the current Federal ban on the sale of sodas as part of school meals.

Both Congress and the United States Department of Agriculture ("USDA") have determined that it is healthier for students to drink milk rather than sodas.

Giving away free sodas may be linked to the current efforts by soft drink companies to sell more sodas to students in schools -- outside of the school lunch program -- by sharing the proceeds from such sales with the school system. Such a contract, according to [The Denver Post](#) (November 22, 1998), led a Colorado Springs school administrator to urge school principals to take steps to boost Coca-Cola sales in their schools by, for example, making the Coca-Cola vending machines more accessible to students and permitting students to drink Coke products while in the classroom. Some Colorado Springs elementary school teachers objected to such efforts.

### **Background**

Beginning with the National School Lunch Act of 1946, 42 U.S.C. §1751 et seq., Congress has sought to provide school children with nutritious food during the school day. In 1977 Congress directed USDA to take steps to restrict access by school children to foods of low nutritional value. P.L. 95-166. In 1980 USDA issued regulations to implement this 1977 law.

The National Soft Drink Association challenged the legality of the USDA's 1980 regulations, which banned, in part, the sale of soft drinks. This challenge was rejected by the Federal District Court, which noted that the Congressional debates on the 1977 law "convey an unmistakable concern that 'junk foods,' notably various types of candy bars, chewing gum and soft drinks, not be allowed to compete in participating schools." National Soft Drink Association v. Bergland, 493 F. Supp. 488 (D.D.C. 1980) rev'd in part and aff'd in part sub nom. National Soft Drink Association v. Block, 721 F.2d 1348 (D.C. Cir. 1983). The District Court observed that "Logic and common sense, as well as several studies in the [rulemaking] record, suggest that irregular eating habits combined with ready access to junk foods adversely affect federal nutritional objectives." Another Federal court held that USDA's 1980 regulations did not bar a school district from offering students a choice of milk or soda as part of a school lunch so long as the soda was not sold separately. Pulaski County Special School District v. Bergland, 495 F. Supp. 820 (E.D. Ark. 1980).

USDA's current regulations prohibit the sale of foods of "minimal nutritional value" -- which include sodas, water ices, chewing gum, and certain candies -- in the food service area during the lunch period in any school. 7 C.F.R. §210.11(b). The current regulations do not mention the giving away of free sodas.

## ***School Lunches Fail to Make the Grade, Say Doctors<sup>1</sup>***

***Too Much Fat, Meat, Chicken, Cheese; Virtually No Non-Dairy Alternatives***

The National School Lunch Program gets poor marks in nutrition according to a new report released today by the nonprofit Physicians Committee for Responsible Medicine (PCRM). In a survey conducted in August, PCRM dietitians learned that only 1 of 12 elementary school districts interviewed is substituting lower-fat, cholesterol-free plant protein for meat on school menus. And, only one of the school districts routinely offers calcium-rich milk alternatives, a surprising finding given the growing concern with milk as a potential factor in a variety of health problems. The National School Lunch Program is a federally assisted meal program that serves 27 million lunches per day.

"Our research shows that the National School Lunch Program is failing to routinely serve healthy, low-fat, fiber- and nutrient-rich meals to children," says PCRM dietitian Jen Keller. "While some schools are lowering fat and making healthier vegetarian meals available, not enough have done their homework when it comes to nutrition. Given the sky-high incidences of obesity and related conditions in this country, school menus obviously need some remedial help."

A summary of findings:

- **Meeting USDA Nutrition Guidelines:** Three out of 12 school districts are not meeting USDA nutrition guidelines, aren't sure if they are, or don't care.
- **Utilizing Commodity or Surplus Foods Donated by the USDA:** Three of the most frequently ordered commodity foods are high-fat and cholesterol-laden ground beef, chicken, and cheese.
- **Availability of Calcium-Rich, Dairy-Free Foods:** Only one district routinely offers calcium-rich vegetables.
- **Efforts to Lower Fat:** Four of the 12 districts say it's difficult to meet government standards for reducing fat on school menus.
- **Availability of Vegetarian Entrées:** Ten of the 12 districts offer a vegetarian substitute meal if requested specially, but only 2 routinely offer vegetarian fare as part of the menu.

PCRM staff interviewed school food service coordinators in 12 school districts, including some of the smallest and largest in each of the seven regions of the country. Districts participating included New York City; Gloucester County, Virginia; Chicago; Anamoose, North Dakota; Golden, Colorado; Kuna, Idaho; Leverett, Massachusetts; Tampa, Florida; Hancock, Mississippi; Dallas; San Simon, Arizona; and San Diego.

For more information, visit [www.pcrm.org](http://www.pcrm.org) or call PCRM communications director Simon Chaitowitz at 202-686-2210, ext. 309. For a packet of tips on healthy nutrition for kids, call PCRM's Literature Department at 202-686-2210, ext. 306, or write [HealthyKids@pcrm.org](mailto:HealthyKids@pcrm.org).

*Founded in 1985, the Physicians Committee for Responsible Medicine is a nonprofit health organization that promotes preventive medicine, especially good nutrition, and higher standards in research.*

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<sup>1</sup> Source: <http://www.pcrm.org/news/health010904.html>

## Appendix F: Student Survey Data Tables

### Student Ethnicity

Ethnicity	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Asian	0	0.0%	0	0.0%	2	2.4%	1	1.3%	3	0.9%
Black	0	0.0%	44	54.3%	18	22.0%	10	12.7%	72	22.2%
Hispanic	82	100.0%	36	44.4%	56	68.3%	65	82.3%	239	73.8%
Other	0	0.0%	1	1.2%	1	1.2%	2	2.5%	4	1.2%
White	0	0.0%	0	0.0%	5	6.1%	1	1.3%	6	1.9%
Total	82		81		82		79		324	

### School-Based Program Enrollment

Enrolled	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Both	40	48.8%	40	49.4%	35	42.7%	24	30.4%	139	42.9%
Dental	14	17.1%	40	49.4%	39	47.6%	39	49.4%	132	40.7%
Medical	28	34.1%	1	1.2%	8	9.8%	16	20.3%	53	16.4%
Total	82		81		82		79		324	

### Age of Students

Age	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Five	6	7.3%	4	4.9%	3	3.7%	2	2.5%	15	4.6%
Six	9	11.0%	12	14.8%	11	13.4%	8	10.1%	40	12.3%
Seven	13	15.9%	12	14.8%	13	15.9%	16	20.3%	54	16.7%
Eight	13	15.9%	14	17.3%	20	24.4%	10	12.7%	57	17.6%
Nine	12	14.6%	13	16.0%	11	13.4%	15	19.0%	51	15.7%
Ten	16	19.5%	14	17.3%	15	18.3%	12	15.2%	57	17.6%
Eleven	9	11.0%	10	12.3%	8	9.8%	10	12.7%	37	11.4%
Twelve	2	2.4%	2	2.5%	1	1.2%	4	5.1%	9	2.8%
Thirteen	2	2.4%	0	0.0%	0	0.0%	2	2.5%	4	1.2%
Total	82		81		82		79		324	

#### Grade of Students

Grade	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Pre-Kindergarten	2	2.4%	0	0.0%	0	0.0%	0	0.0%	2	0.6%
Kindergarten	9	11.0%	10	12.3%	5	6.1%	6	7.6%	30	9.3%
First Grade	16	19.5%	17	21.0%	18	22.0%	15	19.0%	66	20.4%
Second Grade	12	14.6%	14	17.3%	17	20.7%	13	16.5%	56	17.3%
Third Grade	19	23.2%	16	19.8%	17	20.7%	14	17.7%	66	20.4%
Fourth Grade	11	13.4%	5	6.2%	8	9.8%	13	16.5%	37	11.4%
Fifth Grade	13	15.9%	19	23.5%	17	20.7%	18	22.8%	67	20.7%
Total	82		81		82		79		324	

#### Gender of Students

Gender	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Female	36	43.9%	46	56.8%	43	52.4%	46	58.2%	171	52.8%
Male	46	56.1%	35	43.2%	39	47.6%	33	41.8%	153	47.2%
Total	82		81		82		79		324	

#### Student's Academic Standing during survey

Academic	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Excellent	7	10.1%	28	34.6%	18	23.1%	4	5.2%	57	18.7%
Above Average	7	10.1%	33	40.7%	32	41.0%	38	49.4%	110	36.1%
Average	42	60.9%	18	22.2%	23	29.5%	26	33.8%	109	35.7%
Satisfactory	11	15.9%	2	2.5%	4	5.1%	7	9.1%	24	7.9%
Unsatisfactory	2	2.9%	0	0.0%	1	1.3%	2	2.6%	5	1.6%
Total	69		81		78		77		305	

#### Weight Category for all SBC students in medical clinic during 2000-2001 and 2001-2002 School Years

Weight Category	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Under Weight	3	1.5%	1	2.9%	2	1.3%	4	3.2%	10	2.0%
Normal	98	50.3%	23	67.6%	82	53.9%	75	60.5%	278	55.0%
At Risk	43	22.1%	5	14.7%	30	19.7%	19	15.3%	97	19.2%
Over Weight	51	26.2%	5	14.7%	38	25.0%	26	21.0%	120	23.8%
Total	195		34		152		124		505	

#### 1. Are you free to see the school clinic doctor on your own when you are ill?

Seen Doctor	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	71	86.6%	67	82.7%	65	79.3%	71	89.9%	274	84.6%
No	9	11.0%	11	13.6%	9	11.0%	4	5.1%	33	10.2%
No Answer	2	2.4%	3	3.7%	8	9.8%	4	5.1%	17	5.2%
Total	82		81		82		79		324	

2. Can you easily set an appointment to see the dentist?

Easy Dental	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	63	76.8%	75	92.6%	72	87.8%	64	81.0%	274	84.6%
No	12	14.6%	6	7.4%	8	9.8%	11	13.9%	37	11.4%
No Answer	7	8.5%	0	0.0%	2	2.4%	4	5.1%	13	4.0%
Total	82		81		82		79		324	

3. How many times a day do you brush your teeth?

Brush Teeth	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Once	17	20.7%	5	6.2%	6	7.3%	15	19.0%	43	13.3%
Twice	33	40.2%	52	64.2%	53	64.6%	49	62.0%	187	57.7%
Three	20	24.4%	23	28.4%	18	22.0%	14	17.7%	75	23.1%
Not Regular	10	12.2%	1	1.2%	2	2.4%	1	1.3%	14	4.3%
No Answer	2	2.4%	0	0.0%	3	3.7%	0	0.0%	5	1.5%
Total	82		81		82		79		324	

3. How many times a day do you floss your teeth

Floss Teeth	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Once	13	15.9%	11	13.6%	16	19.5%	15	19.0%	55	17.0%
Twice	37	45.1%	39	48.1%	22	26.8%	26	32.9%	124	38.3%
Three	21	25.6%	13	16.0%	7	8.5%	7	8.9%	48	14.8%
Not Regular	8	9.8%	17	21.0%	29	35.4%	29	36.7%	83	25.6%
No Answer	3	3.7%	1	1.2%	8	9.8%	2	2.5%	14	4.3%
Total	82		81		82		79		324	

5. In the last 12 months, how would you describe the health education activities of this program?

Rate Health Ed	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Not Good	2	2.4%	1	1.2%	2	2.4%	1	1.3%	6	1.9%
Good	36	43.9%	15	18.5%	22	26.8%	9	11.4%	82	25.3%
Very Good	8	9.8%	20	24.7%	4	4.9%	15	19.0%	47	14.5%
Excellent	35	42.7%	45	55.6%	52	63.4%	53	67.1%	185	57.1%
No Answer	1	1.2%	0	0.0%	2	2.4%	1	1.3%	4	1.2%
Total	82		81		82		79		324	



6. Do you consider health education to be important and useful?

Health Ed Useful	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	82	100.0%	80	98.8%	78	95.1%	75	94.9%	315	97.2%
No	0	0.0%	1	1.2%	3	3.7%	3	3.8%	7	2.2%
No Answer	0	0.0%	0	0.0%	1	1.2%	1	1.3%	2	0.6%
Total	82		81		82		79		324	

7. How many times has your social worker counseled you in the last 12 months?

Social Worker Contact	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Once	13	15.9%	15	18.5%	9	11.0%	15	19.0%	52	16.0%
Twice	5	6.1%	12	14.8%	2	2.4%	6	7.6%	25	7.7%
Three	2	2.4%	7	8.6%	5	6.1%	5	6.3%	19	5.9%
> Three	1	1.2%	4	4.9%	4	4.9%	8	10.1%	17	5.2%
Never	52	63.4%	43	53.1%	60	73.2%	43	54.4%	198	61.1%
No Answer	9	11.0%	0	0.0%	2	2.4%	2	2.5%	13	4.0%
Total	82		81		82		79		324	

8. During your free time at home, apart from doing your homework, what do you do?

Free Time	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Play Outside	29	28.7%	33	28.7%	31	18.6%	41	23.4%	134	24.0%
Read a Book	21	20.8%	21	18.3%	51	30.5%	37	21.1%	130	23.3%
Watch TV	16	15.8%	24	20.9%	42	25.1%	47	26.9%	129	23.1%
Video Games	9	8.9%	17	14.8%	26	15.6%	23	13.1%	75	13.4%
Computer Games	24	23.8%	15	13.0%	14	8.4%	17	9.7%	70	12.5%
Other	2	2.0%	5	4.3%	3	1.8%	10	5.7%	20	3.6%
Total	101		115		167		175		558	

9. How do you describe your weight?

Describe Weight	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Very Underweight	14	17.1%	4	4.9%	3	3.7%	4	5.1%	25	7.7%
Slightly Underweight	27	32.9%	8	9.9%	8	9.8%	19	24.1%	62	19.1%
About Right	34	41.5%	52	64.2%	59	72.0%	46	58.2%	191	59.0%
Slightly Overweight	6	7.3%	12	14.8%	10	12.2%	9	11.4%	37	11.4%
Very Overweight	1	1.2%	3	3.7%	2	2.4%	1	1.3%	7	2.2%
No Answer	0	0.0%	2	2.5%	0	0.0%	0	0.0%	2	0.6%
Total	82		81		82		79		324	

10. Which of the following are you trying to do about your weight?

Change Weight	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Loose Weight</b>	24	29.3%	25	30.9%	15	18.3%	27	34.2%	91	28.1%
<b>Gain Weight</b>	6	7.3%	15	18.5%	9	11.0%	5	6.3%	35	10.8%
<b>Stay the Same</b>	46	56.1%	40	49.4%	58	70.7%	46	58.2%	190	58.6%
<b>No Answer</b>	6	7.3%	1	1.2%	0	0.0%	1	1.3%	8	2.5%
<b>Total</b>	82		81		82		79		324	

11. During the past 30 days, what did you do to lose weight?

Loose Weight	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Diet</b>	4	16.7%	6	24.0%	1	6.7%	5	18.5%	16	17.6%
<b>Exercise</b>	12	50.0%	13	52.0%	10	66.7%	15	55.6%	50	54.9%
<b>Diet Pills</b>	0	0.0%	1	4.0%	0	0.0%	0	0.0%	1	1.1%
<b>Diet &amp; Exercise</b>	0	0.0%	2	8.0%	3	20.0%	7	25.9%	12	13.2%
<b>No Answer</b>	8	33.3%	3	12.0%	1	6.7%	0	0.0%	12	13.2%
<b>Total</b>	24		25		15		27		91	

12. Do you usually eat a fruit a day?

Fruit	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	77	93.9%	75	92.6%	75	91.5%	71	89.9%	298	92.0%
<b>No</b>	5	6.1%	6	7.4%	7	8.5%	8	10.1%	26	8.0%
<b>Total</b>	82		81		82		79		324	

13. Do you usually have a glass of fruit juice?

Fruit Juice	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	71	86.6%	72	88.9%	71	86.6%	70	88.6%	284	87.7%
<b>No</b>	11	13.4%	9	11.1%	11	13.4%	9	11.4%	40	12.3%
<b>Total</b>	82		81		82		79		324	

14. Do you usually have a glass of milk in a day?

Drink Milk	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	75	91.5%	73	90.1%	77	93.9%	70	88.6%	295	91.0%
<b>No</b>	7	8.5%	8	9.9%	5	6.1%	9	11.4%	29	9.0%
<b>Total</b>	82		81		82		79		324	

15. Do you usually have vegetables with your meals at home?

Vegetables	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	61	74.4%	72	88.9%	75	91.5%	63	79.7%	271	83.6%
No	20	24.4%	9	11.1%	7	8.5%	16	20.3%	52	16.0%
No Answer	1	1.2%	0	0.0%	0	0.0%	0	0.0%	1	0.3%
Total	82		81		82		79		324	

16. During the past week how many times have you had fast-food?

Fast Food	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Once	28	34.1%	23	28.4%	45	54.9%	46	58.2%	142	43.8%
Twice	27	32.9%	25	30.9%	15	18.3%	18	22.8%	85	26.2%
Three	10	12.2%	19	23.5%	5	6.1%	5	6.3%	39	12.0%
Daily	8	9.8%	10	12.3%	8	9.8%	4	5.1%	30	9.3%
No Answer	9	11.0%	4	4.9%	9	11.0%	6	7.6%	28	8.6%
Total	82		81		82		79		324	

17. During the past week, how many times have you taken part in sports?

Sports	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Once	16	19.5%	16	19.8%	15	18.3%	29	36.7%	76	23.5%
Twice	22	26.8%	21	25.9%	20	24.4%	13	16.5%	76	23.5%
Three	14	17.1%	18	22.2%	12	14.6%	11	13.9%	55	17.0%
> Three	26	31.7%	20	24.7%	28	34.1%	18	22.8%	92	28.4%
No Answer	4	4.9%	6	7.4%	7	8.5%	8	10.1%	25	7.7%
Total	82		81		82		79		324	

18. What sport activity did you do that made you sweat?

Sports Activities	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Soccer	24	27.6%	23	26.4%	35	15.0%	41	13.8%	123	17.4%
Running	23	26.4%	20	23.0%	25	10.7%	49	16.5%	117	16.6%
Basketball	12	13.8%	19	21.8%	24	10.3%	29	9.8%	84	11.9%
Bike	6	6.9%	6	6.9%	36	15.4%	32	10.8%	80	11.3%
Swimming	3	3.4%	1	1.1%	17	7.3%	24	8.1%	45	6.4%
Football	3	3.4%	5	5.7%	14	6.0%	19	6.4%	41	5.8%
Roller	3	3.4%	3	3.4%	14	6.0%	17	5.7%	37	5.2%
Walking	2	2.3%	2	2.3%	14	6.0%	18	6.1%	36	5.1%
Dance	0	0.0%	3	3.4%	10	4.3%	20	6.7%	33	4.7%
Baseball	5	5.7%	3	3.4%	9	3.8%	9	3.0%	26	3.7%
Volleyball	4	4.6%	1	1.1%	9	3.8%	12	4.0%	26	3.7%
Aerobics	0	0.0%	1	1.1%	8	3.4%	13	4.4%	22	3.1%
Tennis	2	2.3%	0	0.0%	10	4.3%	9	3.0%	21	3.0%
Martial Arts	0	0.0%	0	0.0%	9	3.8%	5	1.7%	14	2.0%
Total	87		87		234		297		705	

19. Do you take part in school PE?

Take PE	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	79	96.3%	77	95.1%	75	91.5%	76	96.2%	307	94.8%
<b>No</b>	3	3.7%	4	4.9%	7	8.5%	3	3.8%	17	5.2%
<b>Total</b>	82		81		82		79		324	

20. How many days do you have PE?

PE Days	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Once</b>	65	79.3%	18	22.2%	13	15.9%	55	69.6%	151	46.6%
<b>Twice</b>	8	9.8%	39	48.1%	20	24.4%	12	15.2%	79	24.4%
<b>Three</b>	4	4.9%	17	21.0%	14	17.1%	4	5.1%	39	12.0%
<b>&gt;Three</b>	3	3.7%	1	1.2%	27	32.9%	4	5.1%	35	10.8%
<b>No Answer</b>	2	2.4%	6	7.4%	8	9.8%	4	5.1%	20	6.2%
<b>Total</b>	82		81		82		79		324	

21. How do you feel about PE?

PE Useful	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Not Useful</b>	7	8.5%	3	3.7%	3	3.7%	9	11.4%	22	6.8%
<b>Useful</b>	75	91.5%	76	93.8%	76	92.7%	69	87.3%	296	91.4%
<b>No Answer</b>	0	0.0%	2	2.5%	3	3.7%	1	1.3%	6	1.9%
<b>Total</b>	82		81		82		79		324	

22. Have you been absent from school during the past 12 months?

Absent From School	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	35	42.7%	41	50.6%	58	70.7%	54	68.4%	188	58.0%
<b>No</b>	47	57.3%	40	49.4%	24	29.3%	25	31.6%	136	42.0%
<b>Total</b>	82		81		82		79		324	

23. How many days were you absent for each of the following reasons?

Absence	Bonner		Easter		Elrod		McNamara		Total	
	#	Avg	#	Avg	#	Avg	#	Avg	#	Avg
Illness	24	3.0	35	2.3	49	3.0	44	3.2	152	2.9
Death	4	6.0	3	1.7	2	2.0	0	0.0	9	3.7
Family	7	3.6	3	4.0	6	2.0	0	0.0	16	3.1
Doctor's	9	3.9	9	1.6	7	2.0	0	0.0	25	2.5
Not Want to Go	2	1.5	6	3.7	2	2.0	0	0.0	10	2.9
Weather	5	3.0	7	2.7	2	2.5	0	0.0	14	2.8
Other	3	3.3	6	1.8	6	1.7	1	1.0	16	2.0
Total	54		69		74		45		242	

24. Are you satisfied with the care provided at the medical clinic?

Medical Satisfaction	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	75	91.5%	73	90.1%	72	87.8%	70	88.6%	290	89.5%
No	4	4.9%	5	6.2%	4	4.9%	3	3.8%	16	4.9%
No Answer	3	3.7%	3	3.7%	6	7.3%	6	7.6%	18	5.6%
Total	82		81		82		79		324	

25. How satisfied are you?

Medical Rate Satisfaction	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Good	29	38.7%	13	17.8%	12	16.7%	5	7.1%	59	20.3%
Very Good	15	20.0%	11	15.1%	16	22.2%	12	17.1%	54	18.6%
Excellent	30	40.0%	49	67.1%	44	61.1%	53	75.7%	176	60.7%
No Answer	1	1.3%	0	0.0%	0	0.0%	0	0.0%	1	0.3%
Total	75		73		72		70		290	

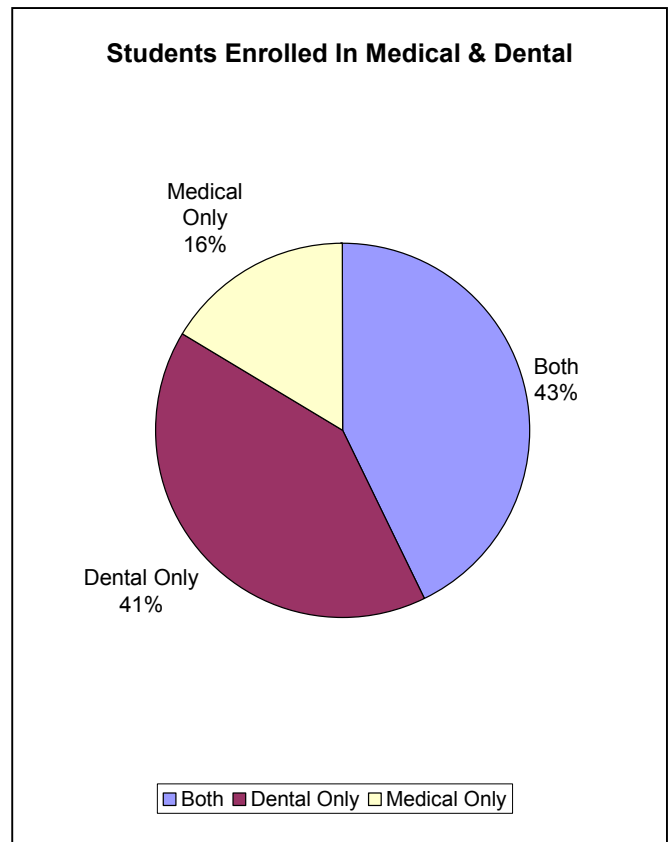
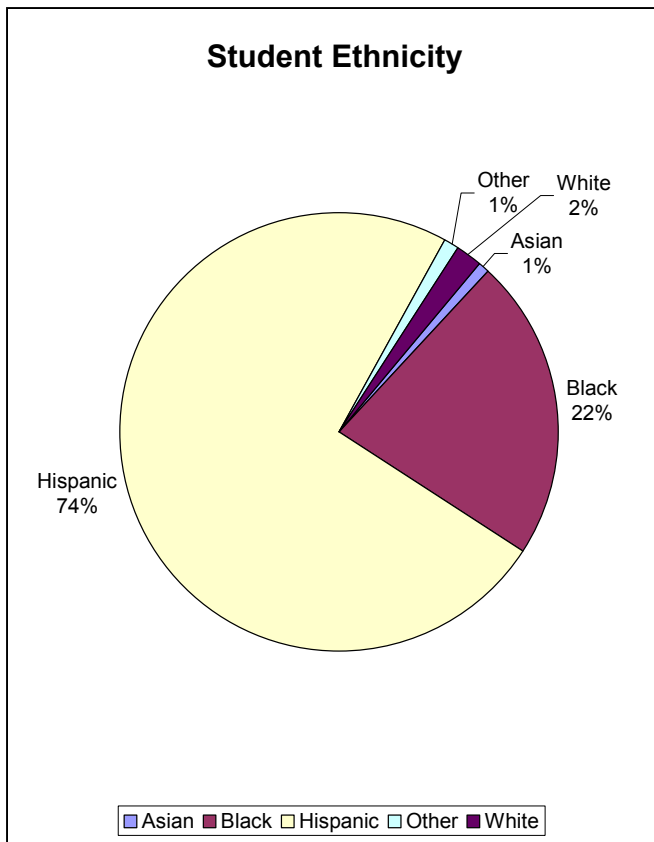
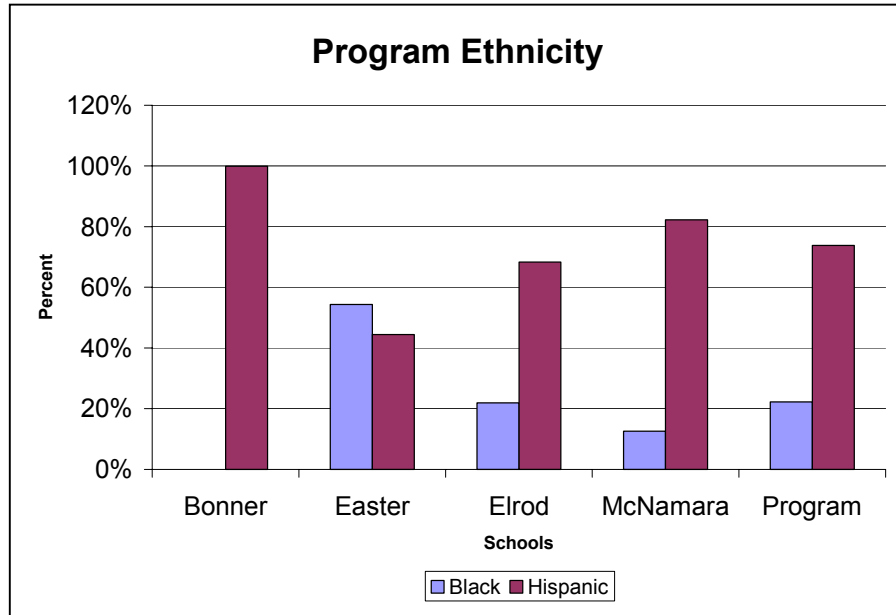
26. Are you satisfied with the care provided at the dental clinic?

Dental Satisfaction	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	65	79.3%	76	93.8%	76	92.7%	64	81.0%	281	86.7%
No	4	4.9%	5	6.2%	2	2.4%	7	8.9%	18	5.6%
No Answer	13	15.9%	0	0.0%	4	4.9%	8	10.1%	25	7.7%
Total	82		81		82		79		324	

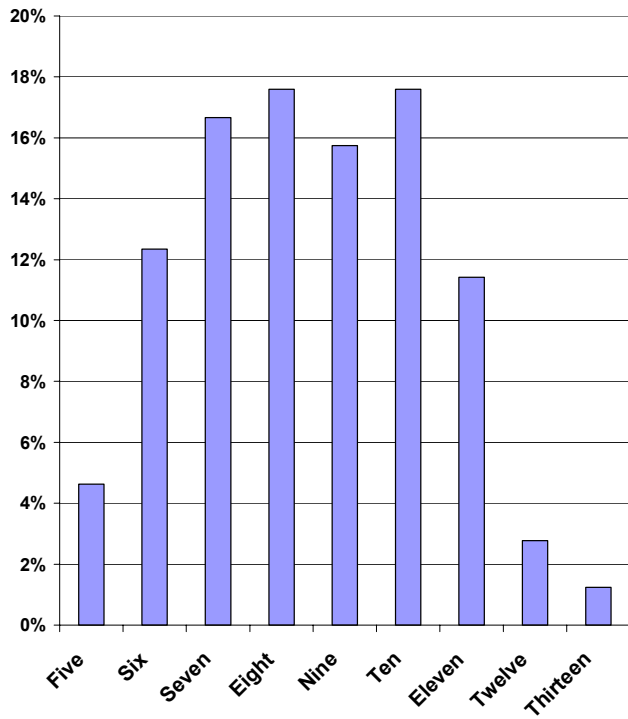
27. How satisfied are you?

<b>Dental Rate Satisfaction</b>	<b>Bonner</b>		<b>Easter</b>		<b>Elrod</b>		<b>McNamara</b>		<b>Total</b>	
	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>
<b>Good</b>	28	43.1%	12	15.8%	14	18.4%	7	10.9%	61	21.7%
<b>Very Good</b>	13	20.0%	20	26.3%	17	22.4%	17	26.6%	67	23.8%
<b>Excellent</b>	23	35.4%	44	57.9%	45	59.2%	40	62.5%	152	54.1%
<b>No Answer</b>	1	1.5%	0	0.0%	0	0.0%	0	0.0%	1	0.4%
<b>Total</b>	65		76		76		64		281	

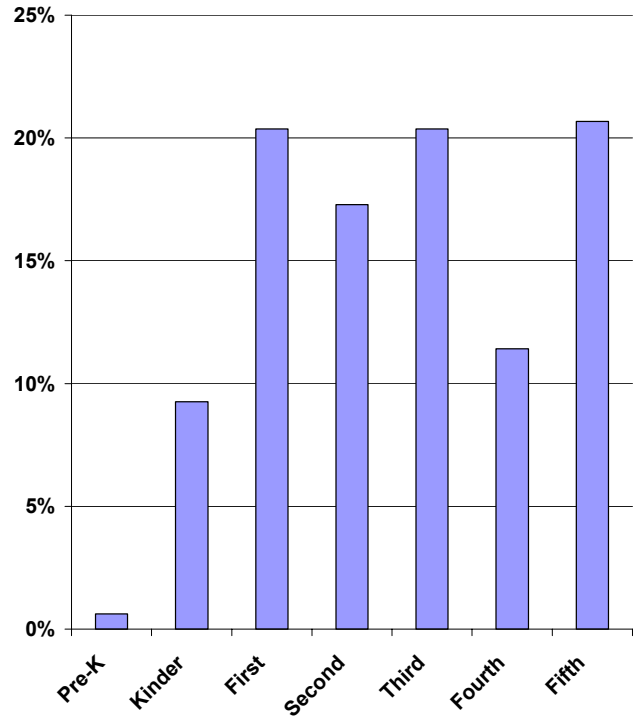
## Appendix G: Student Charts and Graphs



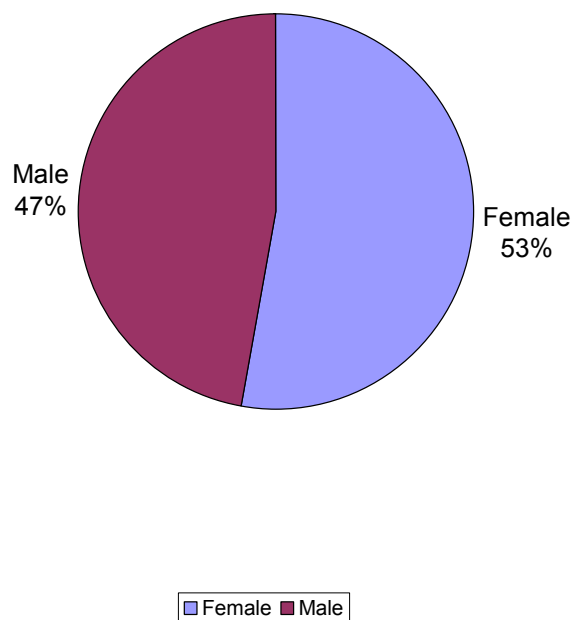
**Age of Students**



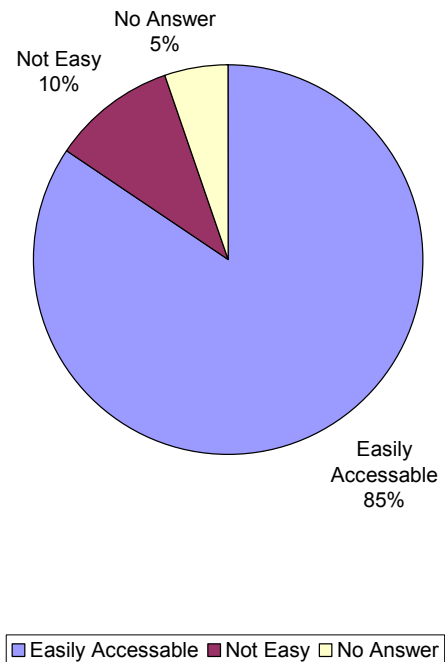
**Grade of Students**



**Student Genders**

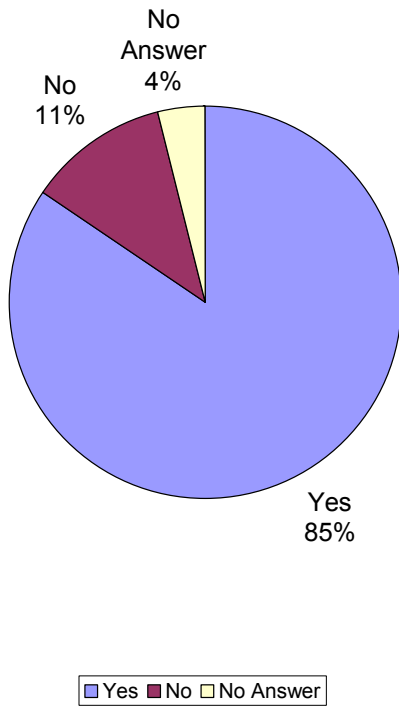


**Medical Clinic Accessibility**

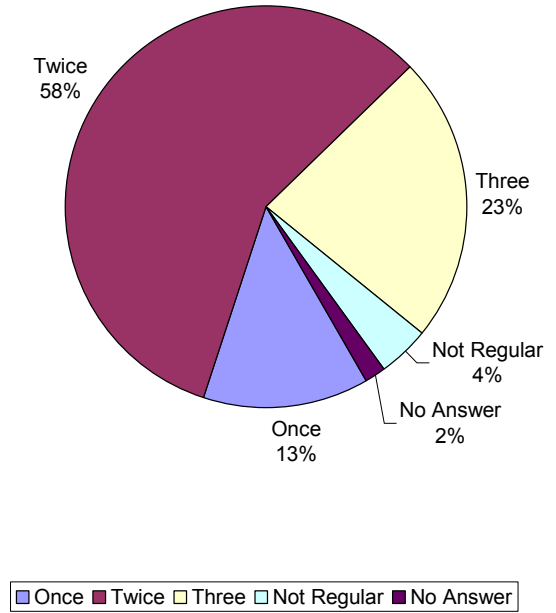




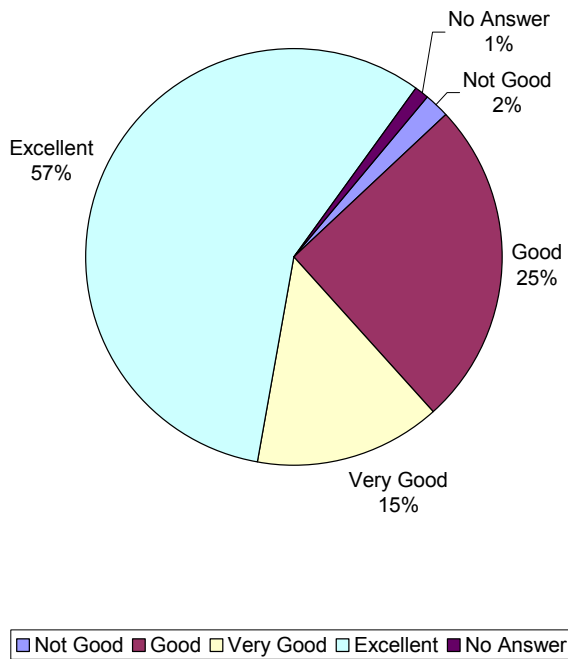
**Easy to Set Dental Appointment**



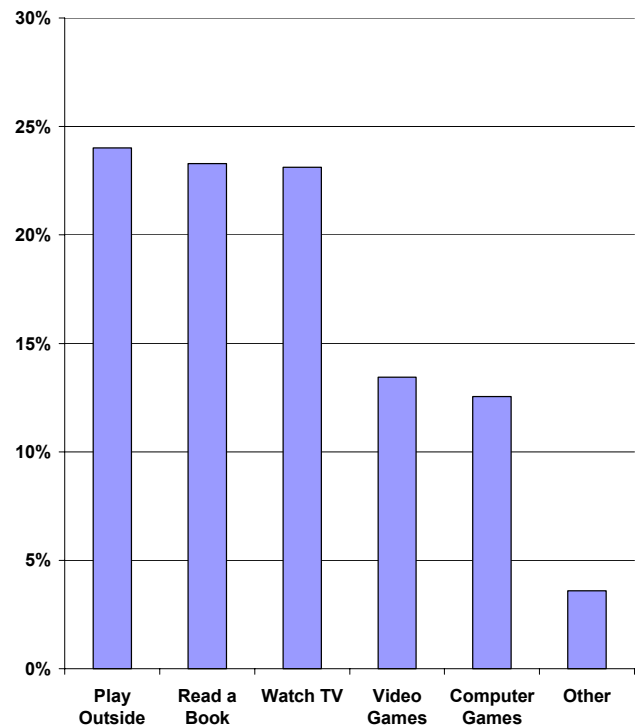
**Number of Times per Day Students Brush their Teeth**



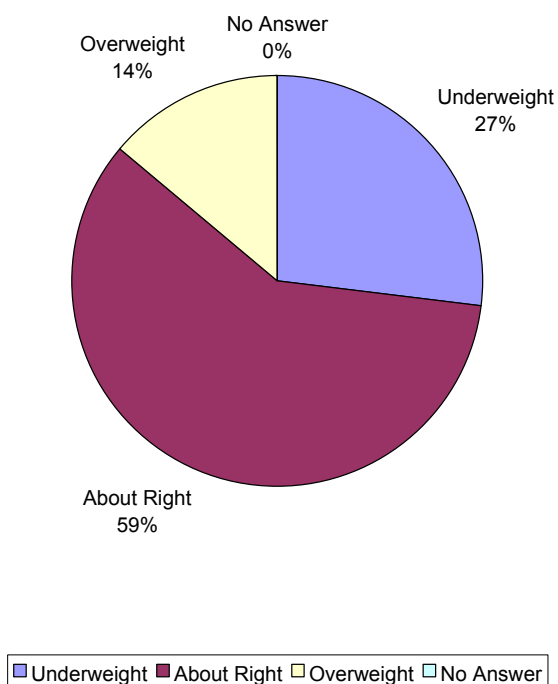
**Students Rate Health Education**



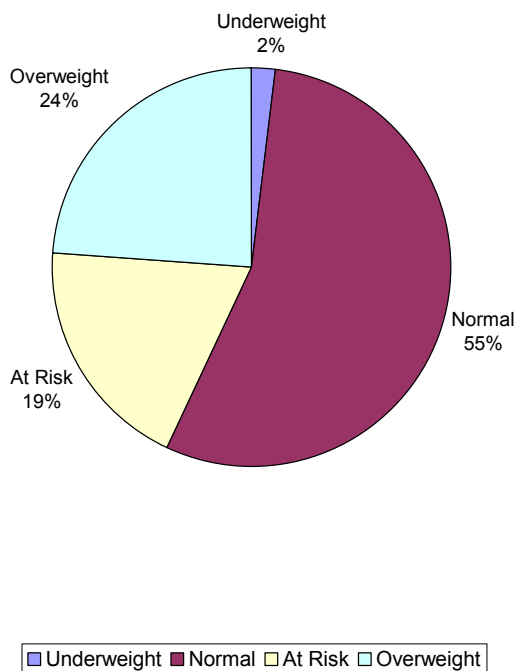
**Student Activities After School**



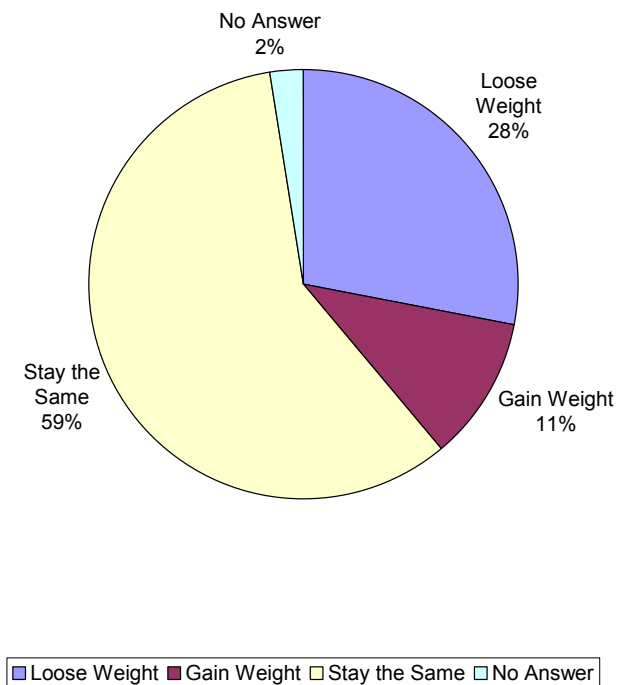
**Student Perceptions About Their Weight**



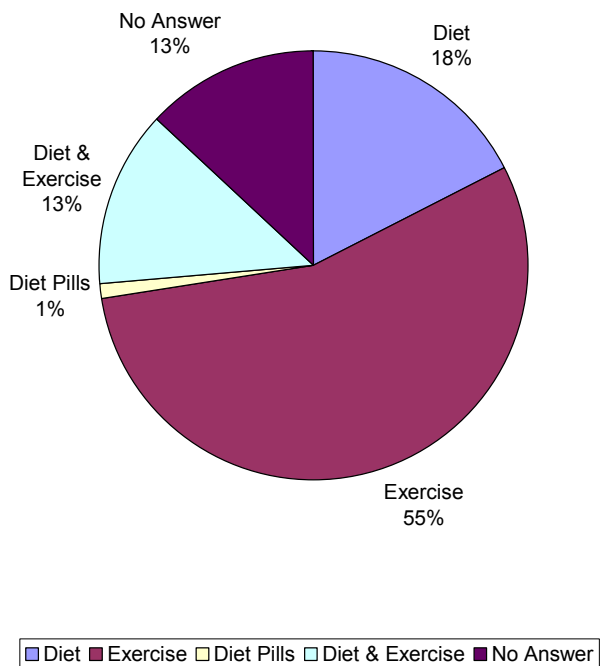
**Student's Weight Categories based on BMI**



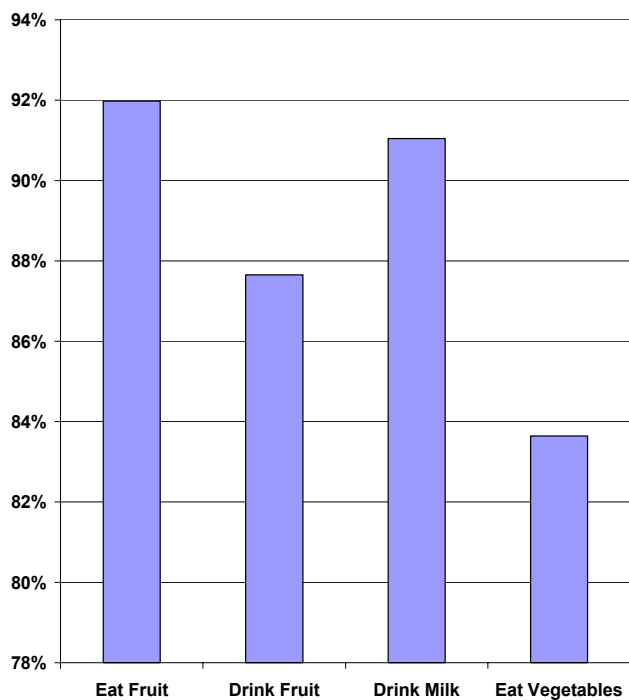
**What Students Would Like to do about Their Weight**



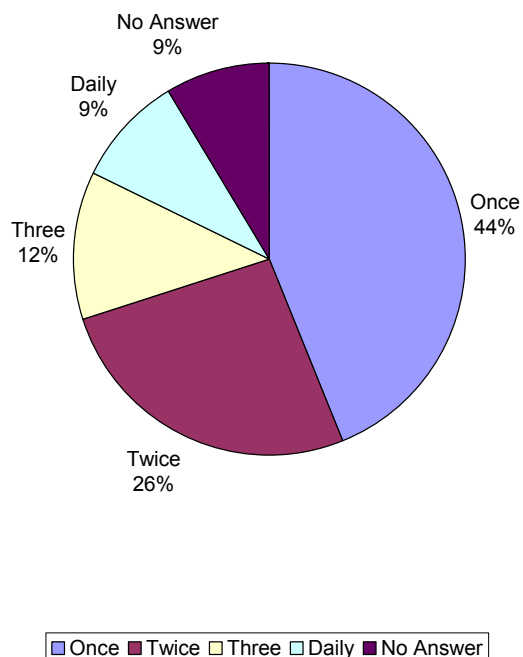
**How Students Plan to Lose Weight**



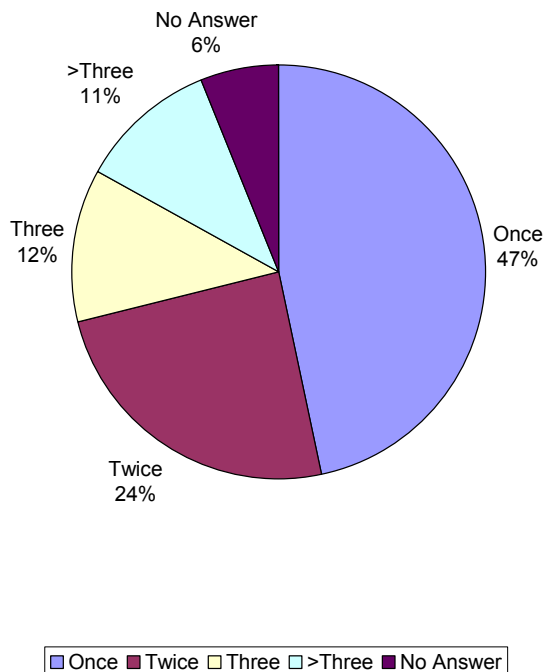
### Daily Eating Habits



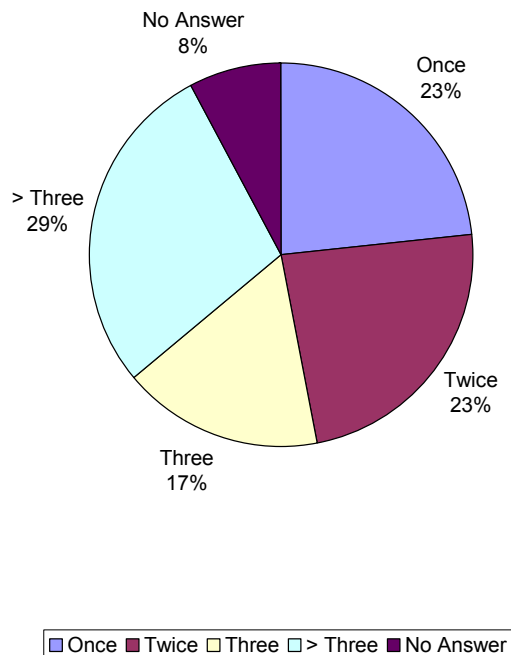
### Number of Times Students Eat Fast Food



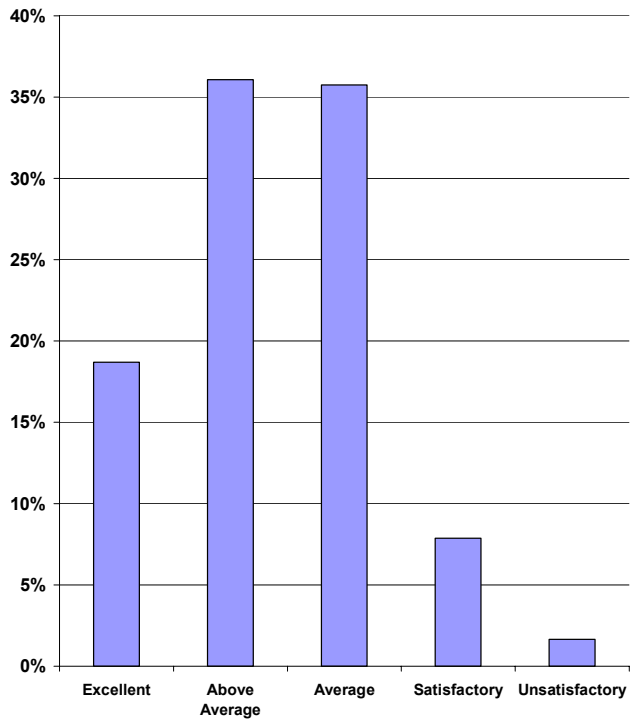
### Number of Times Students are in Physical Education



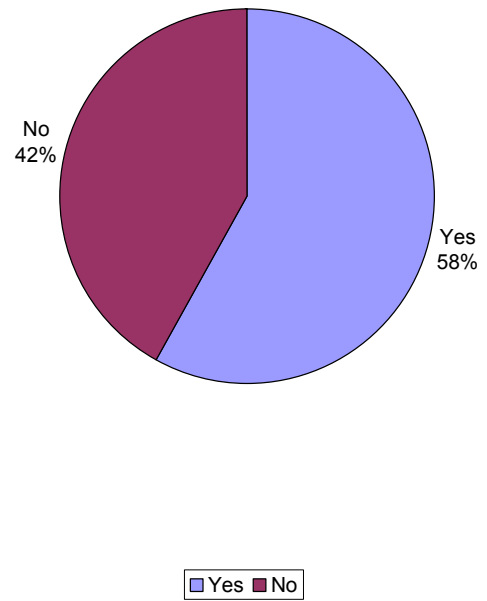
### Number of Times Students Participate in Sports



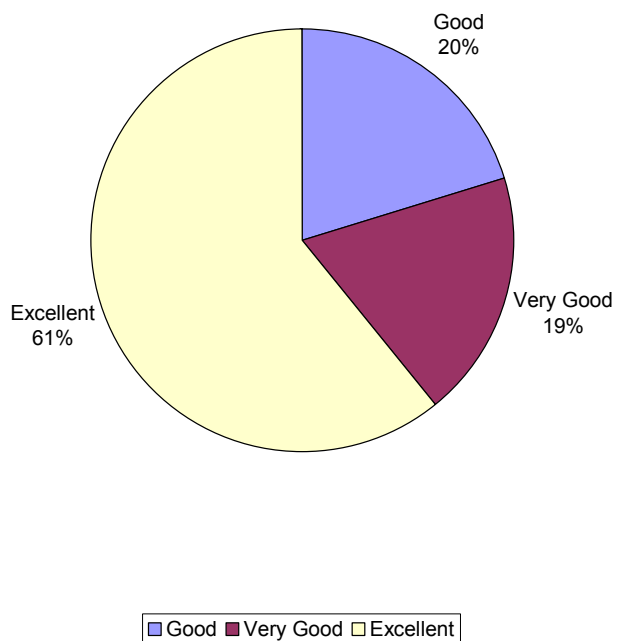
### Student Academic Achievement



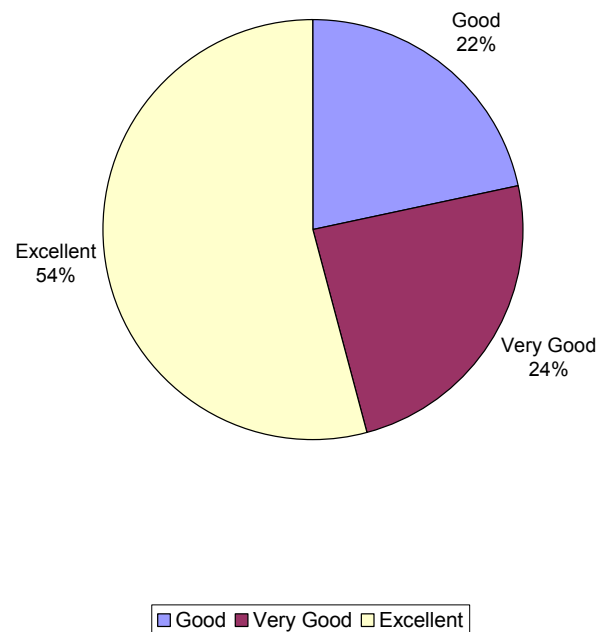
### Students Absent from School



### Medical Clinic Satisfaction



### Dental Clinic Satisfaction



## Appendix H: Parent Survey Data Tables

### Parent Demographics

Race	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Hispanic	54	100.0%	13	43.3%	18	64.3%	24	70.6%	109	74.7%
Black	0	0.0%	14	46.7%	4	14.3%	4	11.8%	22	15.1%
Asian	0	0.0%	0	0.0%	1	3.6%	2	5.9%	3	2.1%
White	0	0.0%	0	0.0%	1	3.6%	1	2.9%	2	1.4%
No Answer	0	0.0%	3	10.0%	4	14.3%	3	8.8%	10	6.8%
Total	54		30		28		34		146	

### 1. How many children do you have attending this school?

Number Attending	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
One Child	22	40.7%	6	20.0%	13	46.4%	14	41.2%	55	37.7%
Two Children	28	51.9%	19	63.3%	10	35.7%	15	44.1%	72	49.3%
Three Children	3	5.6%	4	13.3%	4	14.3%	4	11.8%	15	10.3%
Four Children	1	1.9%	0	0.0%	1	3.6%	1	2.9%	3	2.1%
Five Children	0	0.0%	1	3.3%	0	0.0%	0	0.0%	1	0.7%
Total	54		30		28		34		146	

### 2. Do you have health insurance for your child/children?

Health Insurance	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	15	27.8%	27	90.0%	14	50.0%	15	44.1%	71	48.6%
No	39	72.2%	2	6.7%	14	50.0%	19	55.9%	74	50.7%
No Answer	0	0.0%	1	3.3%	0	0.0%	0	0.0%	1	0.7%
Total	54		30		28		34		146	

### 3. If yes, what health insurance do you have?

Insurance Type	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
CHIP	7	13.0%	0	0.0%	5	17.9%	4	11.8%	16	11.0%
Medicaid	2	3.7%	13	43.3%	5	17.9%	7	20.6%	27	18.5%
Medicare	0	0.0%	1	3.3%	0	0.0%	0	0.0%	1	0.7%
Private Insurance	5	9.3%	13	43.3%	3	10.7%	1	2.9%	22	15.1%
No Insurance	40	74.1%	3	10.0%	15	53.6%	22	64.7%	80	54.8%
No Answer	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	54		30		28		34		146	

4. Are you gainfully employed?

Employed	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	14	25.9%	18	60.0%	11	39.3%	17	50.0%	60	41.1%
<b>No</b>	40	74.1%	12	40.0%	16	57.1%	17	50.0%	85	58.2%
<b>No Answer</b>	0	0.0%	0	0.0%	1	3.6%	0	0.0%	1	0.7%
<b>Total</b>	54		30		28		34		146	

5. If yes, what do you do?

Occupation	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>No Answer</b>	3	21.4%	0	0.0%	2	18.2%	8	47.1%	13	21.7%
<b>Manual</b>	10	71.4%	4	22.2%	2	18.2%	5	29.4%	21	35.0%
<b>Transportation</b>	0	0.0%	0	0.0%	1	9.1%	0	0.0%	1	1.7%
<b>Personal Appearance</b>	1	7.1%	0	0.0%	0	0.0%	0	0.0%	1	1.7%
<b>Sales</b>	0	0.0%	1	5.6%	1	9.1%	1	5.9%	3	5.0%
<b>Protective Services</b>	0	0.0%	1	5.6%	1	9.1%	0	0.0%	2	3.3%
<b>Maintenance</b>	0	0.0%	3	16.7%	2	18.2%	0	0.0%	5	8.3%
<b>Clerical</b>	0	0.0%	6	33.3%	1	9.1%	1	5.9%	8	13.3%
<b>Self Employed</b>	0	0.0%	0	0.0%	1	9.1%	0	0.0%	1	1.7%
<b>Professional Aide</b>	0	0.0%	3	16.7%	0	0.0%	0	0.0%	3	5.0%
<b>Professional</b>	0	0.0%	0	0.0%	0	0.0%	2	11.8%	2	3.3%
<b>Total</b>	14		18		11		17		60	

6. If no, are you a housewife or home keeper?

Housewife	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	36	90.0%	12	100.0%	14	82.4%	16	94.1%	78	90.7%
<b>No</b>	2	5.0%	0	0.0%	1	5.9%	0	0.0%	3	3.5%
<b>No Answer</b>	2	5.0%	0	0.0%	2	11.8%	1	5.9%	5	5.8%
<b>Total</b>	40		12		17		17		86	

7 & 9 How much is your bi-weekly income and if anyone else is employed in your household, how much is their income?

Average Income	Bonner		Easter		Elrod		McNamara		Total	
	\$	#	\$	#	\$	#	\$	#	\$	#
<b>Parent</b>	\$ 512	24	\$ 739	18	\$ 463	11	\$ 517	16	\$ 564	69
<b>Other</b>	\$ 629	34	\$ 673	4	\$ 543	13	\$ 1755	13	\$ 843	64
<b>Household</b>	\$ 581	58	\$ 727	22	\$ 506	24	\$ 1072	29	\$ 698	133

The average household income for all four schools is \$18,148 per year.

8. What is your educational background?

Education	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Some School	34	63.0%	6	20.0%	12	42.9%	17	50.0%	69	47.3%
High School/GED	13	24.1%	19	63.3%	13	46.4%	11	32.4%	56	38.4%
Some College	3	5.6%	5	16.7%	1	3.6%	2	5.9%	11	7.5%
College Graduate	3	5.6%	0	0.0%	1	3.6%	1	2.9%	5	3.4%
Post Graduate	1	1.9%	0	0.0%	0	0.0%	1	2.9%	2	1.4%
No Answer	0	0.0%	0	0.0%	1	3.6%	2	5.9%	3	2.1%
Total	54		30		28		34		146	

10. Does another person contribute to your household income?

Other Contributions	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
yes	35	64.8%	13	43.3%	13	46.4%	15	44.1%	76	52.1%
no	19	35.2%	16	53.3%	2	7.1%	8	23.5%	45	30.8%
No Answer*	0	0.0%	1	3.3%	13	46.4%	11	32.4%	25	17.1%
Total	54		30		28		34		146	

11. During the past 12 months, have you taken your child to the School Clinic?

Take to SBHC	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
yes	40	74.1%	30	100.0%	19	67.9%	15	44.1%	104	71.2%
No	14	25.9%	0	0.0%	7	25.0%	15	44.1%	36	24.7%
No Answer	0	0.0%	0	0.0%	2	7.1%	4	11.8%	6	4.1%
Total	54		30		28		34		146	

12. During the past 12 months, have you taken your child to a clinic other than the School Clinic?

Take to Other Clinic	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	24	44.4%	25	83.3%	13	46.4%	15	44.1%	77	52.7%
No	30	55.6%	5	16.7%	13	46.4%	16	47.1%	64	43.8%
No Answer	0	0.0%	0	0.0%	2	7.1%	3	8.8%	5	3.4%
Total	54		30		28		34		146	

13. If yes, did you have to miss a day's work?

Miss Work	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	4	16.7%	4	16.0%	1	7.7%	2	13.3%	11	14.3%
No	20	83.3%	21	84.0%	11	84.6%	10	66.7%	62	80.5%
No Answer	0	0.0%	0	0.0%	1	7.7%	3	20.0%	4	5.2%
Total	24		25		13		15		77	

14. Did you have to make an appointment at that clinic?

Clinic Appointment	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	17	70.8%	25	100.0%	9	69.2%	6	40.0%	57	74.0%
No	7	29.2%	0	0.0%	4	30.8%	7	46.7%	18	23.4%
No Answer	0	0.0%	0	0.0%	0	0.0%	2	13.3%	2	2.6%
Total	24		25		13		15		77	

15. How long did you have to wait before you saw the doctor?

Wait Time	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Less than 15 min	14	58.3%	12	48.0%	1	7.7%	3	20.0%	30	39.0%
About 30 min	2	8.3%	10	40.0%	3	23.1%	7	46.7%	22	28.6%
About 45 min	4	16.7%	1	4.0%	1	7.7%	3	20.0%	9	11.7%
More than 60 min	2	8.3%	1	4.0%	4	30.8%	1	6.7%	8	10.4%
No Answer	2	8.3%	1	4.0%	4	30.8%	1	6.7%	8	10.4%
Total	24		25		13		15		77	

16. If you had to use the community clinic, would you travel by...

Travel By	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Bus	14	25.9%	7	23.3%	14	50.0%	19	55.9%	54	37.0%
Private Car	29	53.7%	22	73.3%	11	39.3%	13	38.2%	75	51.4%
Taxi Cab	0	0.0%	1	3.3%	0	0.0%	2	5.9%	3	2.1%
Other	11	20.4%	0	0.0%	2	7.1%	0	0.0%	13	8.9%
No Answer	0	0.0%	0	0.0%	1	3.6%	0	0.0%	1	0.7%
Total	54		30		28		34		146	

17. In the last 12 months, has your child been absent from school?

Absent from School	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	31	57.4%	22	73.3%	16	57.1%	25	73.5%	94	64.4%
No	23	42.6%	8	26.7%	10	35.7%	8	23.5%	49	33.6%
No Answer	0	0.0%	0	0.0%	2	7.1%	1	2.9%	3	2.1%
Total	54		30		28		34		146	

18. How many days, in the last 12 months, was your child absent for the following reasons?

Average Days Absent	Bonner n=31	Easter n=22	Elrod n=16	McNamara n=25	Total n=94
Illness	1.87	2.27	1.81	2.56	2.14
Death/Family	0.13	0.36	0.13	0.16	0.19
Vacation	0.03	0.00	0.13	0.08	0.05
Doctor	0.61	0.09	0.00	0.40	0.33
Bad Weather	0.39	0.09	0.13	0.08	0.19
Other	0.06	0.00	0.00	0.36	0.12



19. Does your child usually have breakfast at home before leaving for school?

<b>Breakfast at Home</b>	<b>Bonner</b>		<b>Easter</b>		<b>Elrod</b>		<b>McNamara</b>		<b>Total</b>	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	31	57.4%	9	30.0%	19	67.9%	19	55.9%	78	53.4%
<b>No</b>	22	40.7%	21	70.0%	8	28.6%	14	41.2%	65	44.5%
<b>No Answer</b>	1	1.9%	0	0.0%	1	3.6%	1	2.9%	3	2.1%
<b>Total</b>	54		30		28		34		146	

20. If no, does your child have breakfast at school?

<b>Breakfast at School</b>	<b>Bonner</b>		<b>Easter</b>		<b>Elrod</b>		<b>McNamara</b>		<b>Total</b>	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	17	77.3%	19	90.5%	8	100.0%	14	100.0%	58	89.2%
<b>No</b>	5	22.7%	0	0.0%	0	0.0%	0	0.0%	5	7.7%
<b>No Answer</b>	0	0.0%	2	9.5%	0	0.0%	0	0.0%	2	3.1%
<b>Total</b>	22		21		8		14		65	

21. How many times during the school week does your child have the following for breakfast?

<b>Average Days Breakfast Foods</b>	<b>Bonner</b> n=54	<b>Easter</b> n=30	<b>Elrod</b> n=28	<b>McNamara</b> n=34	<b>Total</b> n=146
<b>Eggs/Milk</b>	3.28	4.63	2.54	2.82	3.31
<b>Bacon/Sausage</b>	1.70	2.13	1.46	1.56	1.71
<b>Cereal</b>	2.26	3.17	1.21	1.76	2.13
<b>Sweet Cereal</b>	1.89	2.93	2.04	1.88	2.13
<b>Hot Cereal</b>	0.81	1.57	0.82	0.50	0.90
<b>Bread/Potatoes</b>	1.81	2.40	1.82	1.82	1.94
<b>Sweet Bread</b>	1.72	1.53	1.11	1.56	1.53
<b>Fruit</b>	2.80	4.63	2.07	2.65	3.00
<b>Fruit Juice</b>	3.28	4.63	2.00	2.56	3.14
<b>Fruit Drink</b>	2.52	4.27	2.07	1.85	2.64

22. Do you give your child a fruit at least once a day?

<b>Fruit</b>	<b>Bonner</b>		<b>Easter</b>		<b>Elrod</b>		<b>McNamara</b>		<b>Total</b>	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	49	90.7%	30	100.0%	25	89.3%	32	94.1%	136	93.2%
<b>No</b>	5	9.3%	0	0.0%	0	0.0%	0	0.0%	5	3.4%
<b>No Answer</b>	0	0.0%	0	0.0%	3	10.7%	2	5.9%	5	3.4%
<b>Total</b>	54		30		28		34		146	

23. Do you give your child fruit juice at least once a day?

<b>Fruit Juice</b>	<b>Bonner</b>		<b>Easter</b>		<b>Elrod</b>		<b>McNamara</b>		<b>Total</b>	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	46	85.2%	29	96.7%	22	78.6%	24	70.6%	121	82.9%
<b>No</b>	7	13.0%	1	3.3%	1	3.6%	5	14.7%	14	9.6%
<b>No Answer</b>	1	1.9%	0	0.0%	5	17.9%	5	14.7%	11	7.5%
<b>Total</b>	54		30		28		34		146	

24. Do you give your child vegetables with his or her meals?

Vegetables With Meals	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	36	66.7%	29	96.7%	22	78.6%	28	82.4%	115	78.8%
No	17	31.5%	0	0.0%	4	14.3%	6	17.6%	27	18.5%
No Answer	1	1.9%	1	3.3%	2	7.1%	0	0.0%	4	2.7%
Total	54		30		28		34		146	

25. What after school snacks do you give your child?

Snacks	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Chips	8	22.9%	20	87.0%	4	18.2%	6	18.8%	38	33.9%
Candy	2	5.7%	0	0.0%	5	22.7%	4	12.5%	11	9.8%
Cakes/Soda	3	8.6%	0	0.0%	5	22.7%	6	18.8%	14	12.5%
Cookies	22	62.9%	3	13.0%	8	36.4%	16	50.0%	49	43.8%
Total	35		23		22		32		112	

26. Is there a child 1 to 5 years old in your house currently enrolled in WIC?

WIC Sibling	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	14	25.9%	1	3.3%	11	39.3%	11	32.4%	37	25.3%
No	39	72.2%	29	96.7%	15	53.6%	21	61.8%	104	71.2%
No Answer	1	1.9%	0	0.0%	2	7.1%	2	5.9%	5	3.4%
Total	54		30		28		34		146	

27. Do you consider Health Education to be important and useful?

Health Education	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	53	98.1%	30	100.0%	27	96.4%	33	97.1%	143	97.9%
No	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
No Answer	1	1.9%	0	0.0%	1	3.6%	1	2.9%	3	2.1%
Total	54		30		28		34		146	

28. Are you satisfied with the care given to your child at the School Clinic?

Medical Clinic Satisfaction	Bonner		Easter		Elrod		McNamara		Total	
	#	%	#	%	#	%	#	%	#	%
Yes	49	90.7%	30	100.0%	20	71.4%	29	85.3%	128	87.7%
No	0	0.0%	0	0.0%	0	0.0%	1	2.9%	1	0.7%
No Answer	5	9.3%	0	0.0%	8	28.6%	4	11.8%	17	11.6%
Total	54		30		28		34		146	

29. How satisfied are you with the care given to your child at the School Clinic?

<b>Medical Clinic How Satisfied</b>	<b>Bonner</b>		<b>Easter</b>		<b>Elrod</b>		<b>McNamara</b>		<b>Total</b>	
	#	%	#	%	#	%	#	%	#	%
<b>Good</b>	22	45.8%	1	3.3%	9	42.9%	9	39.1%	41	33.6%
<b>Very Good</b>	15	31.3%	9	30.0%	7	33.3%	12	52.2%	43	35.2%
<b>Excellent</b>	11	22.9%	20	66.7%	5	23.8%	2	8.7%	38	31.1%
<b>Total</b>	48		30		21		23		122	

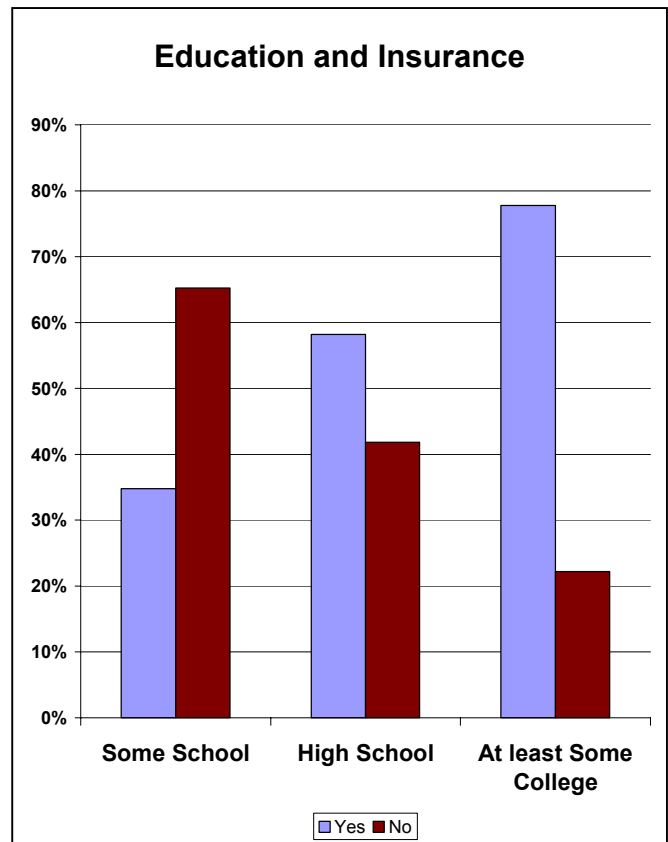
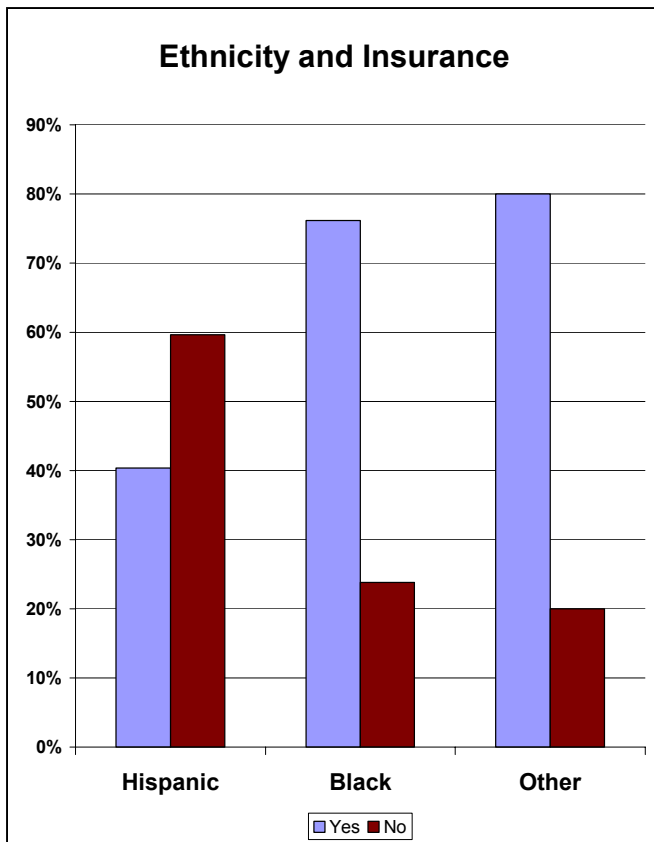
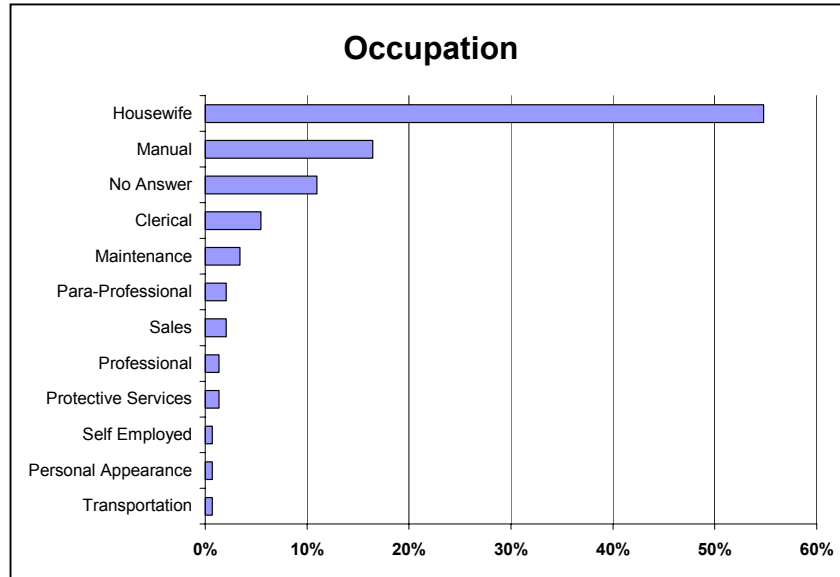
30. Are you satisfied with the care given to your child at the Dental Clinic?

<b>Dental Clinic Satisfaction</b>	<b>Bonner</b>		<b>Easter</b>		<b>Elrod</b>		<b>McNamara</b>		<b>Total</b>	
	#	%	#	%	#	%	#	%	#	%
<b>Yes</b>	39	72.2%	30	100.0%	22	78.6%	31	91.2%	122	83.6%
<b>No</b>	2	3.7%	0	0.0%	0	0.0%	0	0.0%	2	1.4%
<b>No Answer</b>	13	24.1%	0	0.0%	6	21.4%	3	8.8%	22	15.1%
<b>Total</b>	54		30		28		34		146	

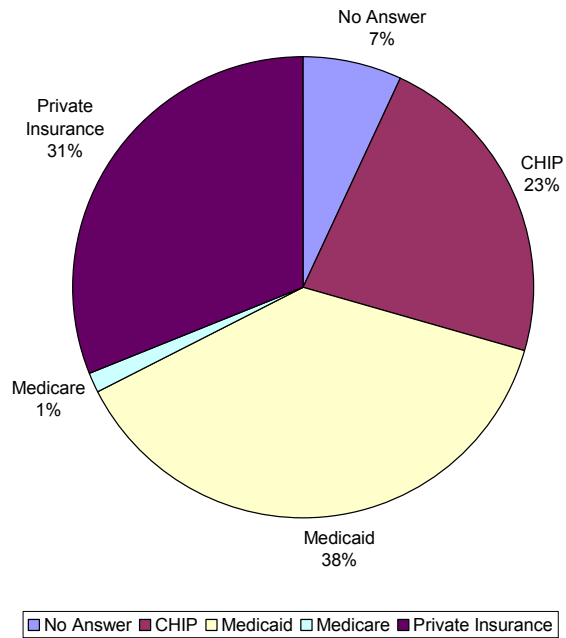
31. How satisfied are you with the care given to your child at the Dental Clinic?

<b>Dental Clinic Satisfaction</b>	<b>Bonner</b>		<b>Easter</b>		<b>Elrod</b>		<b>McNamara</b>		<b>Total</b>	
	#	%	#	%	#	%	#	%	#	%
<b>Good</b>	13	33.3%	1	3.3%	5	22.7%	11	35.5%	30	24.6%
<b>Very Good</b>	17	43.6%	10	33.3%	9	40.9%	13	41.9%	49	40.2%
<b>Excellent</b>	9	23.1%	19	63.3%	6	27.3%	2	6.5%	36	29.5%
<b>No Answer</b>	0	0.0%	0	0.0%	2	9.1%	5	16.1%	7	5.7%
<b>Total</b>	39		30		22		31		122	

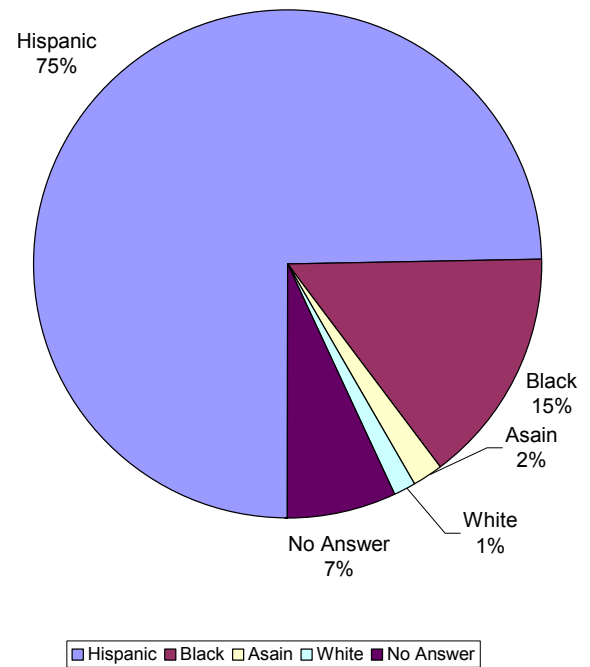
## Appendix I: Parent Charts and Graphs



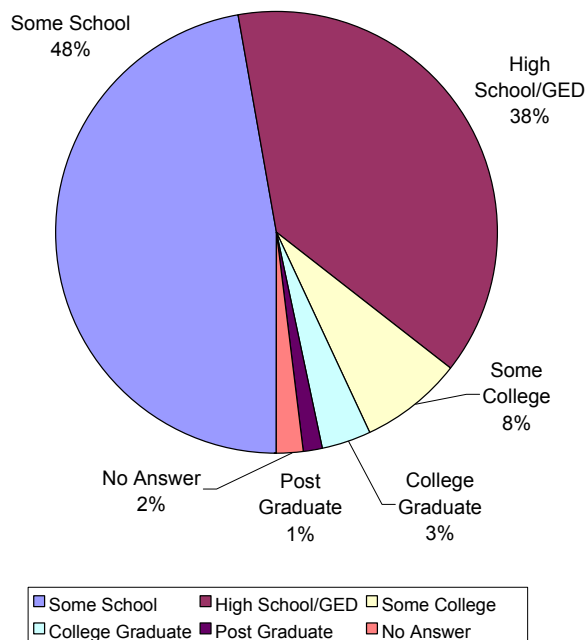
### Health Insurance Type



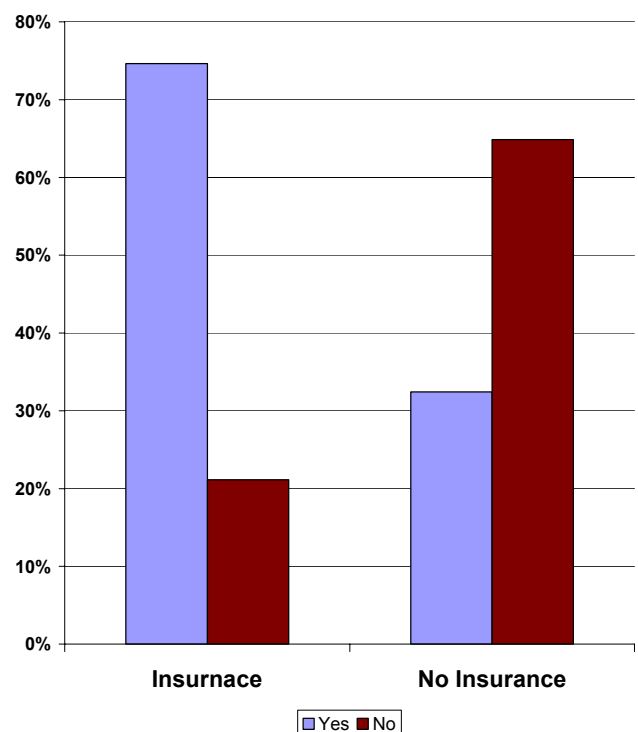
### Parent Ethnicity



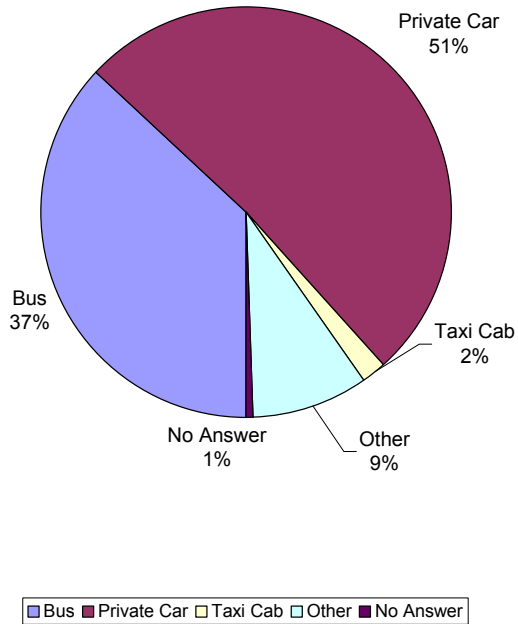
### Parent Education



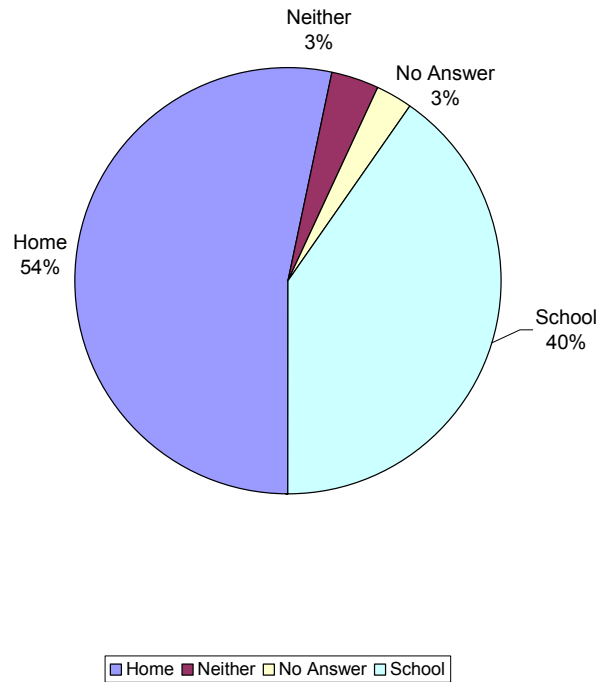
### Take Children to Other Clinic



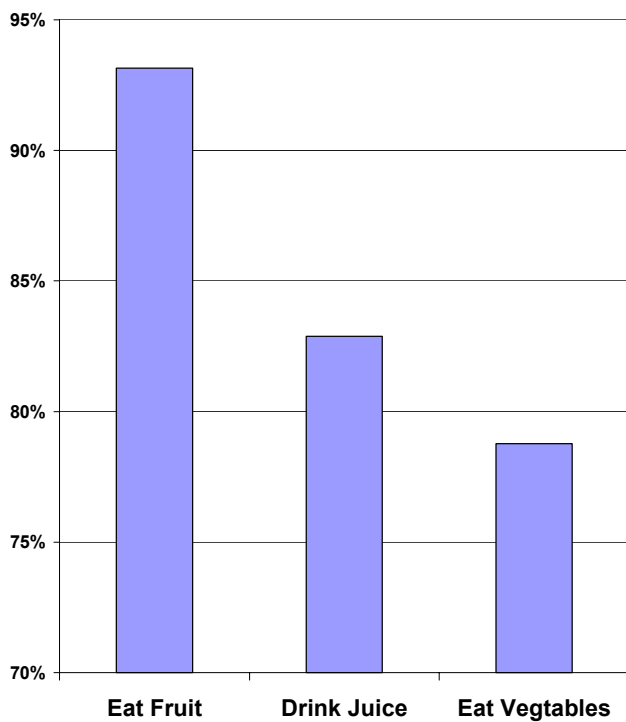
### Travel Options to Community Clinics



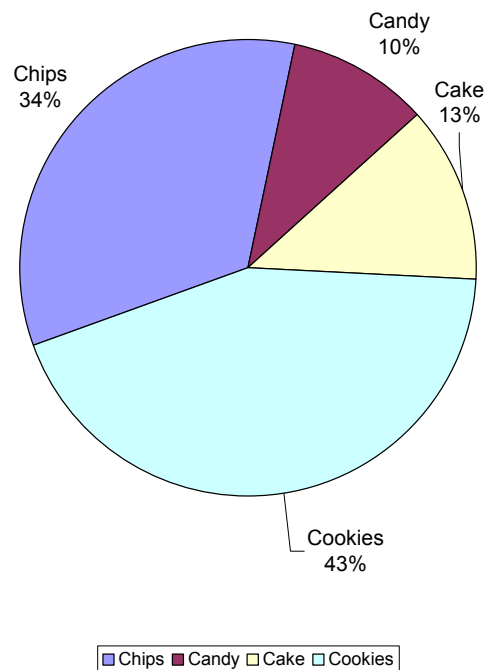
### Breakfast Location



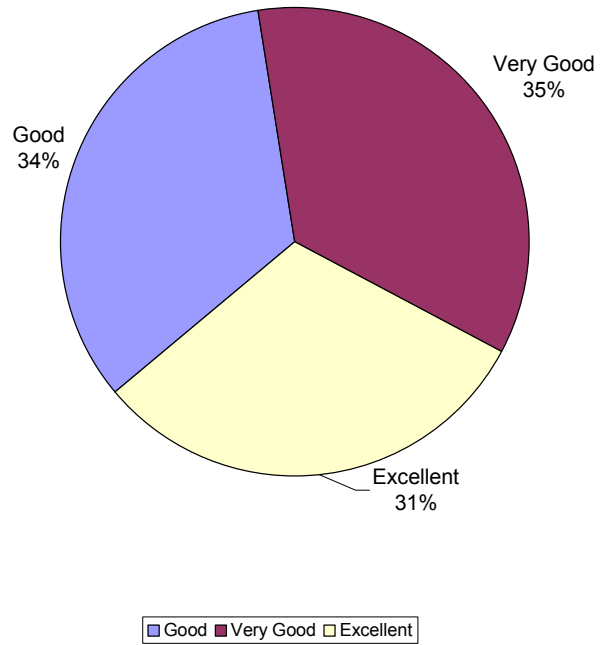
### Good Eating Habits



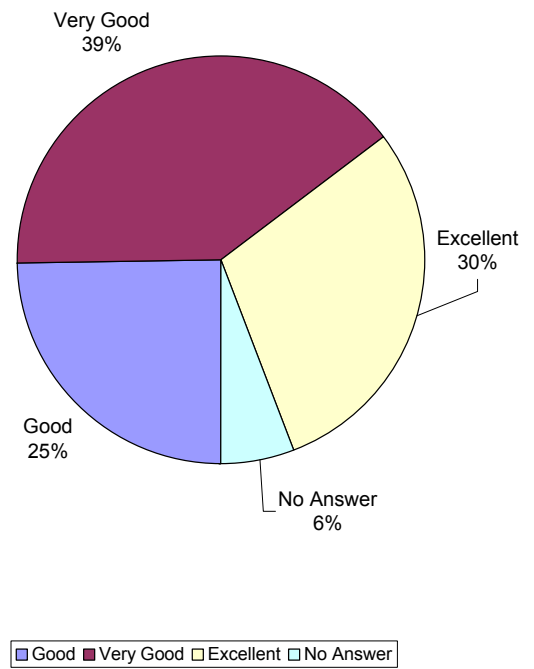
### Parent Snack Options



### Medical Clinic Satisfaction



### Dental Clinic Satisfaction



## Appendix J: Childhood Immunizations

### *Children Immunized Against Specified Diseases: 1994 to 1996<sup>12</sup>*

	1994	1995	1996	1996				
				White	Hispanic	Black	Native American	Asian Pacific Islander
Diphtheria-tetanus-pertussis (DPT)/ diphtheria-tetanus:								
3+ doses	94%	95%	95%	96%	93%	93%	93%	96%
4+ doses	76%	79%	81%	83%	77%	79%	83%	84%
Polio: 3+ doses	83%	88%	91%	92%	89%	90%	89%	90%
Hib <sup>3</sup> : 3+ doses	86%	92%	92%	93%	89%	90%	90%	92%
Measles containing (MCV)	89%	90%	91%	92%	88%	89%	87%	94%
Hepatitis B: 3+ doses	37%	68%	82%	82%	80%	82%	78%	84%
4 DPT/3 polio/1 MCV	74%	76%	78%	80%	73%	76%	81%	81%
4 DPT/3 polio/1 MCV/3 hiB	69%	74%	77%	79%	71%	74%	80%	78%

1 Source: US Census Bureau Statistical Abstract of the United States: 1998 Table No 228

2 Covers civilian noninstitutionalized population ages 19 months to 35 months. Based on estimates from the National Immunization Survey. The health care providers of the children are contacted to verify and/or complete vaccination information. Results are based on race/ethnic status of the child.

3 Haemophilus B



## Recommended Childhood and Adolescent Immunization 2003\*

Vaccine	Age	range of recommended ages				catch-up vaccination				preadolescent assessment			
		Birth	1 mo	2 mos	4 mos	6 mos	12 mos	15 mos	18 mos	24 mos	4-6 yrs	11-12 yrs	13-18 yrs
Hepatitis B <sup>1</sup>		HepB #1	only if mother HBsAg (-)	HepB #2			HepB #3				HepB series		
Diphtheria, Tetanus, Pertussis <sup>2</sup>				DTaP	DTaP	DTaP		DTaP			DTaP		Td
<i>Haemophilus influenzae</i> Type b <sup>3</sup>				Hib	Hib	Hib	Hib						
Inactivated Polio				IPV	IPV		IPV			IPV			
Measles, Mumps, Rubella <sup>4</sup>							MMR #1				MMR #2	MMR #2	
Varicella <sup>5</sup>							Varicella				Varicella		
Pneumococcal <sup>6</sup>				PCV	PCV	PCV	PCV			PCV	PPV		
Vaccines below this line are for selected populations													
Hepatitis A <sup>7</sup>											Hepatitis A series		
Influenza <sup>8</sup>													Influenza (yearly)

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2002, for children through age 18 years. Any dose not given at the recommended age should be given at any subsequent visit when indicated and feasible.

<sup>1</sup> **Hepatitis B vaccine (HepB).** All infants should receive the first dose of hepatitis B vaccine soon after birth and before hospital discharge; the first dose may also be given by age 2 months if the infant's mother is HBsAg-negative. Only monovalent HepB can be used for the birth dose. Monovalent or combination vaccine containing HepB may be used to complete the series. Four doses of vaccine may be administered when a birth dose is given. The second dose should be given at least 4 weeks after the first dose, except for combination vaccines which cannot be administered before age 6 weeks. The third dose should be given at least 16 weeks after the first dose and at least 8 weeks after the second dose. The last dose in the vaccination series (third or fourth dose) should not be administered before age 6 months.

*Infants born to HBsAg-positive mothers should*

receive HepB and 0.5 mL Hepatitis B Immune Globulin (HBIG) within 12 hours of birth at separate sites. The second dose is recommended at age 1-2 months. The last dose in the vaccination series should not be administered before age 6 months. These infants should be tested for HBsAg and anti-HBs at 9-15 months of age.

*Infants born to mothers whose HBsAg status is unknown* should receive the first dose of the HepB series within 12 hours of birth. Maternal blood should be drawn as soon as possible to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than age 1 week). The second dose is recommended at age 1-2 months. The last dose in the vaccination series should not be administered before age 6 months.

<sup>2</sup> **Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).** The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15-18 months. Tetanus and diphtheria toxoids (Td) is recommended at age 11-12 years if at least 5 years have elapsed since the last dose of tetanus and diphtheria

\* Source: CDC National Immunization Program. <http://www.cdc.gov/nip/recs/child-schedule.pdf>

toxoid-containing vaccine. Subsequent routine Td boosters are recommended every 10 years.

<sup>3</sup> **Haemophilus influenzae type b (Hib) conjugate vaccine.** Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. DTaP/Hib combination products should not be used for primary immunization in infants at ages 2, 4 or 6 months, but can be used as boosters following any Hib vaccine.

<sup>4</sup> **Measles, mumps, and rubella vaccine (MMR).** The second dose of MMR is recommended routinely at age 4-6 years but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and that both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by the 11-12 year old visit.

<sup>5</sup> **Varicella vaccine.** Varicella vaccine is recommended at any visit at or after age 12 months for susceptible children, i.e. those who lack a reliable history of chickenpox. Susceptible persons aged ≥13 years should receive two doses, given at least 4 weeks apart.

<sup>6</sup> **Pneumococcal vaccine.** The heptavalent pneumococcal conjugate vaccine (PCV) is recommended for all children age 2-23 months. It is also recommended for certain children age 24-59 months. Pneumococcal polysaccharide vaccine (PPV) is recommended in addition to PCV for certain high-risk groups. See MMWR 2000;49(RR-9);1-38.

<sup>7</sup> **Hepatitis A vaccine.** Hepatitis A vaccine is recommended for children and adolescents in selected states and regions, and for certain high-risk groups; consult your local public health authority. Children and adolescents in these states, regions, and high risk groups who have not been immunized against hepatitis A can begin the hepatitis A vaccination series during any visit. The two doses in the series should be administered at least 6 months apart. See MMWR 1999;48(RR-12);1-37.

<sup>8</sup> **Influenza vaccine.** Influenza vaccine is recommended annually for children age ≥6 months with certain risk factors (including but not limited to asthma, cardiac disease, sickle cell disease, HIV, diabetes, and household members

of persons in groups at high risk; see MMWR 2002;51(RR-3);1-31), and can be administered to all others wishing to obtain immunity. In addition, healthy children age 6-23 months are encouraged to receive influenza vaccine if feasible because children in this age group are at substantially increased risk for influenza-related hospitalizations. Children aged ≤12 years should receive vaccine in a dosage appropriate for their age (0.25 mL if age 6-35 months or 0.5 mL if aged ≥3 years). Children aged ≤8 years who are receiving influenza vaccine for the first time should receive two doses separated by at least 4 weeks.

For additional information about vaccines, including precautions and contraindications for immunization and vaccine shortages, please visit the National Immunization Program Website at [www.cdc.gov/nip](http://www.cdc.gov/nip) or call the National Immunization Information Hotline at 800-232-2522 (English) or 800-232-0233 (Spanish).

Approved by the Advisory Committee on Immunization Practices ([www.cdc.gov/nip/acip](http://www.cdc.gov/nip/acip)), the American Academy of Pediatrics ([www.aap.org](http://www.aap.org)), and the American Academy of Family Physicians ([www.aafp.org](http://www.aafp.org)).

## Appendix K: Nutrition & Fitness Information

### *Laboratory Tests Used to Evaluate Nutritional Status<sup>1</sup>*

1. Complete blood count including hematoerit, hemoglobin, RBC, red cell indexes, WBC, lymphocytes, and diffential count.
2. Plasma proteins including albumin, globulin, prealbumin, transferrin, and retinol binding protein
3. Plasma nitrogen, BUN, creatinine, uric acid
4. Plasma lipids including total cholesterol, triglycerides, LDL cholesterol, and HDL cholesterol
5. Plasma electrolytes:  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^-$ ,  $\text{HCO}_3^{2-}$ ,  $\text{Mg}^{2+}$ ,  $\text{Ca}^{2+}$ ,  $\text{HPO}_4^{2-}$
6. Vitamins and vitamin-dependent substances: vitamin A, vitamin E, 25(OH)D<sub>3</sub>, vitamin K, vitamin C, folate, vitamin B<sub>12</sub> in plasma; thiamine, riboflavin, and N<sup>7</sup>-methylnicotinamide in urine; and transketolase and glutathione reductase in RBCs
7. Minerals: iron, zinc, copper, and manganese in plasma; sodium, zinc, copper, manganese, and phosphorus in urine
8. Urinary nitrogen, urea, cretinine, uric acid, hydroxyproline, 3-methylhistidine
9. Skin tests for antigens (to access cellmediated immunity)

### *Body Weight Ranges<sup>23</sup>*

Feet/ Inches	Centi- meters	Men				Women <sup>4</sup>			
		Desirable		Obese <sup>5</sup>		Desirable		Obese	
		lb	kg	lb	kg	lb	kg	lb	kg
4'10"	147					92-121	42-55	131	59
4'11"	150					95-124	43-56	134	60
5'0"	152					98-127	45-58	137	63
5'1"	155	105-134	48-61	144	65	101-130	46-59	140	64
5'2"	157	108-137	49-62	148	67	104-134	47-61	145	66
5'3"	160	111-141	50-64	152	69	107-138	49-63	149	68
5'4"	162	114-145	52-66	157	71	110-142	50-65	152	69
5'5"	165	117-149	53-68	161	73	114-146	52-66	156	71
5'6"	167	121-154	55-70	166	76	118-150	54-68	162	73
5'7"	170	125-159	57-72	172	78	122-154	55-70	166	76
5'8"	172	129-163	59-74	176	80	126-159	57-72	172	78
5'9"	175	133-167	60-76	180	82	130-164	59-75	177	81
5'10"	178	137-172	62-78	186	84	134-169	61-77	183	83
5'11"	180	141-177	64-80	191	86				
6'0"	183	145-182	66-83	196	90				
6'1"	185	149-187	68-85	202	92				
6'2"	188	153-192	70-87	207	94				
6'3"	190	157-197	71-90	213	97				

<sup>11</sup> Source: <http://www.merck.com/pubs/mmanual/tables/1tb6.htm>

<sup>2</sup> Source: <http://www.merck.com/pubs/mmanual/tables/1tb5.htm>

<sup>3</sup> Adapted from the 1959 Metropolitan Desirable Weight Table, prepared by the Metropolitan Life Insurance company; derived primarily from the Body and Blood Pressure Study, Society of Actuaries, 1959.

<sup>4</sup> For women 18-25 years, subtract 1 lb for each year under 25.

<sup>5</sup> The value given in the obese column, which is 20% above the mean desirable weight is the threshold weight for obesity. Weight higher than this value may indicate obesity

## ***Healthy Eating Indexes, by Selected Food Groups and Dietary Guidelines: 1996<sup>1</sup>***

	<b>Avg Score on one day</b>	<b>% Receiving Score of 10</b>	<b>Perfect Score of 10<sup>2</sup></b>	<b>Score of 0</b>
Healthy Eating Index	63.8	12.2% <sup>3</sup>		
Grains <sup>4</sup>	6.7	22.2%	6-11 servings	0 servings
Vegetables <sup>5</sup>	6.3	31.8%	3-5 Servings	0 servings
Fruits <sup>5</sup>	3.8	17.1%	2-4 servings	0 servings
Milk <sup>6</sup>	5.4	25.5%	2-3 servings	0 servings
Meat <sup>7</sup>	6.4	26.4%	2-3 servings	0 servings
Total fat <sup>8</sup>	6.9	37.5%	<30% cal. From fat	>45% cal. From fat
Saturated fat <sup>8</sup>	6.4	40.1%	<10% cal. Sat. fat	> 15% from sat fat
Cholesterol	7.9	71.9%	<300 mg	>450 mg
Sodium	6.3	34.7%	<2,400 mg	>4,800 mg
Variety <sup>9</sup>	7.6	53.0%	8 items/day	< 4 items/day

Healthy Eating Index is comprised of the sum of 10 dietary component indices for a maximum possible score of 100. A score of 80 or above was judged to reflect a "good" diet. Each of the dietary components has a scoring range of zero to 10. Individuals with an intake at the recommended level received a maximum score of 10 points. A score of zero was assigned when no foods in a particular group were eaten. Intermediate scores were calculated proportionately. The indexes for grains, vegetables, fruits, milk, and meat groups measure the degree to which a person's diet conforms to the U.S. Department of Agriculture's (USDA) "Food Guide Pyramid" serving recommendations. The index was applied to USDA one-day food and nutrient intake data from the Continuing Survey of Food Intakes by Individuals. The data are based on a representative sample of individuals 2 years old and over excluding women who were pregnant or lactating at the time of the survey

<sup>1</sup> Source: CDC Statistical Abstract of the United States: 1998 Table Number 244

<sup>2</sup> Depends on recommended energy intake. All amounts listed are based on a per day basis.

<sup>3</sup> Percent receiving a score of 80 or higher.

<sup>4</sup> One serving: a slice of bread, one-half cup of cooked pasta, or one-half cup of cooked cereal grains.

<sup>5</sup> One serving: one-half cup of cooked vegetables, 1 cup of raw leafy vegetables, or one-half cup of raw nonleafy chopped vegetables. Fruits are similar.

<sup>6</sup> One serving: one cup of milk or equivalent.

<sup>7</sup> Includes eggs, nuts, and some legumes. One serving: 2.5 ounces of lean meat or equivalent.

<sup>8</sup> Consumption of specified fat as a percentage of total food energy intake.

<sup>9</sup> Amount of variety in a person's diet over a 1-day period.

**Percent of Population Overweight by Age, Sex, and Race: 1976 to 1994<sup>12</sup>**

Demographic group	1976-80	1988-94
20 to 74 years old	2.5%	34.8%
Male	24.0%	33.7%
Female <sup>3</sup>	26.5%	35.9%
White male	24.2%	34.3%
White female <sup>3</sup>	24.4%	33.9%
Black male	25.7%	34.0%
Black female <sup>3</sup>	44.3%	53.0%

Males	1976-80	1988-94	Females <sup>3</sup>	1976-80	1988-94
20 to 34 years old	17.3%	25.4%	20 to 34 years old	16.8%	25.6%
35 to 44 years old	28.9%	34.9%	35 to 44 years old	27.0%	36.8%
45 to 54 years old	31.0%	37.7%	45 to 54 years old	32.5%	45.4%
55 to 64 years old	28.1%	43.7%	55 to 64 years old	37.0%	48.2%
65 to 74 years old	25.2%	42.9%	65 to 74 years old	38.4%	42.3%
≥75 years old	NA	27.7%	≥75 years old	NA	35.1%

**Self-Perception of Being Overweight: 1988-1994<sup>4</sup>**

Percent Overweight & Think They are Overweight						
	Total <sup>5</sup>		White		Black	
	Male	Female	Male	Female	Male	Female
20 to 39 years old	82.4%	93.7%	86.6%	95.7%	73.4%	90.0%
40 to 59 years old	85.8%	96.3%	88.9%	99.2%	71.1%	90.6%
≥60 years old	73.9%	82.8%	75.0%	85.7%	64.4%	71.0%
Total	81.7%	91.6%	84.4%	93.8%	71.2%	86.4%

Percent Not Overweight & Think They are Overweight						
	Total <sup>5</sup>		White		Black	
	Male	Female	Male	Female	Male	Female
20 to 39 years old	24.4%	45.0%	27.3%	46.1%	12.7%	37.6%
40 to 59 years old	30.9%	51.5%	33.5%	54.2%	21.5%	41.6%
≥60 years old	19.7%	33.3%	21.3%	35.9%	10.5%	15.1%
Total	25.4%	44.1%	28.0%	45.9%	14.8%	34.9%

Overweight is defined for men as body mass index greater than or equal to 27.8 kilograms/meter squared, and for women as body mass index greater than or equal to 27.3 kilograms/meter squared. These points were used because they represent the sex-specific 85th percentiles for persons 20-29 years of age in the 1976-80 National Health and Nutrition Examination Survey (NHANES). Data are based on physical examinations of a sample of the civilian noninstitutional population in the NHANES

<sup>1</sup> Source: Census Bureau, Statistical Abstract of the United States: 1998, Table Number 242

<sup>2</sup> Age-adjusted. Includes other races not shown separately.

<sup>3</sup> Excludes pregnant women.

<sup>4</sup> Source: Census Bureau, Statistical Abstract of the United States: 1998, Table Number 243

<sup>5</sup> Includes other races and person of Hispanic origin not shown separately

**Days of Disability, by Type and Selected Characteristics: 1980 to 1995<sup>12</sup>**

Item	Days Per Person					
	1980	1985	1990	1993	1994	1995
Restricted-activity days <sup>3</sup>	19.1	14.8	14.9	17.1	16.0	15.6
Male	17.1	12.8	13.1	14.9	13.6	13.7
Female	21.0	16.6	16.7	19.2	18.2	17.5
White	18.7	14.5	14.8	17.0	15.7	15.6
Black	22.7	17.4	17.7	19.2	18.4	17.0
Under 65 years	16.6	12.4	12.6	14.7	13.4	13.4
65 years and over	39.2	33.1	31.4	33.8	34.6	32.0
Northeast	17.9	13.8	13.2	15.9	15.9	14.7
Midwest	17.2	12.7	14.0	15.8	13.9	13.9
South	19.8	16.3	16.7	18.3	16.4	16.9
West	22.0	15.7	14.8	17.7	17.6	16.4
Family income:						
Under \$10,000	(NA)	25.8	27.3	30.2	29.1	30.0
\$10,000 to \$19,999	(NA)	16.7	19.1	22.3	21.5	21.0
\$20,000 to \$34,999	(NA)	12.1	13.5	15.7	15.2	15.1
\$35,000 or more	(NA)	9.9	10.3	11.2	10.5	10.6
Bed-disability days <sup>4</sup>	7.0	6.1	6.2	6.7	6.2	6.1
Male	5.9	5.2	5.2	5.6	4.9	5.3
Female	8.0	7.1	7.1	7.8	7.4	6.8
Under 65 years	6.1	5.1	5.2	5.8	5.1	5.1
65 years and over	13.8	13.7	13.6	13.5	14.4	13.1
Work-loss days <sup>5</sup>	5.0	5.3	5.3	5.6	5.2	5.3
Male	4.9	4.8	4.7	4.8	4.6	4.5
Female	5.1	6.0	5.9	6.4	5.9	6.1
School-loss days <sup>6</sup>	5.3	4.8	4.6	5.3	4.5	4.5
Male	4.8	4.4	4.3	5.0	4.1	4.2
Female	5.7	5.3	5.0	5.5	5.0	4.9

<sup>1</sup> Source: US Census Bureau Statistical Abstract of the United States: 1998 Table No 220

<sup>2</sup> Covers civilian noninstitutional population and comprises incidents leading to restricted activity and/or medical attention. Based on National Health Interview Survey.

<sup>3</sup> A day when a person cuts down on his activities (including work or school) for more than half a day because of illness or injury.

<sup>4</sup> A day when a person stayed in bed more than half a day (including work or school) because of illness or injury.

<sup>5</sup> A day when a person over 18 years lost more than half a day's work due to injury or illness.

<sup>6</sup> A day when a person 5-17 years lost more than half a school day due to illness or injury

***Injuries by Sex, Age and Type: 1980 to 1995<sup>12</sup>***

	Injuries (mil)			Rate Per 100 Population		
	Total	Male	Female	Total	Male	Female
1980	68.1	39.0	29.1	31.2	37.1	25.8
1985	62.6	34.6	28.0	26.8	30.6	23.1
1990	60.1	33.6	26.6	24.4	28.1	21.0
1993	62.1	33.4	28.7	24.4	27.0	22.0
1994	61.9	32.6	29.2	23.8	25.8	22.0
1995, total	64.6	34.7	29.9	24.7	27.2	22.3
Under 5 years	5.5	3.3	2.2	27.0	31.7	22.0
5 to 17 years	15.2	9.4	5.8	30.2	36.4	23.7
18 to 44 years	25.7	14.3	11.4	23.8	26.9	20.8
45 years and over	18.2	7.7	10.5	21.9	20.2	23.3
Fractures <sup>3</sup>	8.2	4.9	3.3	3.1	3.8	2.5
Sprains and strains	13	6.5	6.5	4.9	5.1	4.8
Open wounds and lacerations	12.4	7.3	5.1	4.7	5.7	3.8
Contusions <sup>4</sup>	12.3	6.7	5.6	4.7	5.2	4.2
Other	18.7	9.3	9.4	7.2	7.3	7

***Acute Conditions by Type: 1980 to 1995<sup>5</sup>***  
Rates per 100 population

	Infection and Parasitic	Common Cold	Influenza	Digestive System	Injuries
Under 5 years old	52.0	53.7	53.6	11.7	27.0
5 to 17 years old	39.6	33.0	59.4	7.3	30.2
18 to 24 years old	18.3	21.8	43.1	6.3	25.1
25 to 44 years old	13.5	18.6	45.2	5.0	23.4
45 to 64 years old	8.7	16.1	28.0	4.5	23.3
≥65 years old	5.9	12.2	14.0	5.4	19.7
Male	18.6	22.3	39.0	5.7	27.2
Female	21.5	23.9	43.4	6.4	22.3
White	21.2	22.0	44.0	5.7	26.1
Black	17.6	26.9	26.5	9.6	18.1
Family income:					
Under \$10,000	21.6	30.1	47.7	11.2	29.1
\$10,000 to \$19,999	21.6	21.8	39.7	6.4	24.3
\$20,000 to \$34,999	18.2	26.0	41.6	5.1	26.0
\$35,000 or more	22.2	20.6	44.8	5.4	24.3

<sup>1</sup> Source: US Census Bureau Statistical Abstract of the United States: 1998 Table No 221

<sup>2</sup> Covers civilian noninstitutional population and comprises incidents leading to restricted activity and/or medical attention. Based on National Health Interview Survey.

<sup>3</sup> Includes dislocations

<sup>4</sup> Includes superficial Injuries

<sup>5</sup> Source: US Census Bureau Statistical Abstract of the United States: 1998. Table No 229

## Appendix L: WIC Child Nutritional Risk Codes<sup>1</sup>

### Anthropometric -Priority III

- 103- Child Underweight -Less than or equal to 10th percentile weight for length or height (R)
- 113- Child Overweight -Greater than or equal to 90th percentile weight for length or height (R)
- 121- Short Stature -Less than or equal to 10th percentile length or height for age (R)
- 134- Failure to Thrive (FTT) (R)
- 135- Inadequate Growth (R)
- 141- Low Birth Weight -Birth weight of 5 lbs. 8 ozs. or less (2500 g or less) for children younger than 24 months only
- 151- Small for Gestational Age -Less than 10th percentile weight for gestational age at birth for children younger than 24 months

### Biochemical -Priority III

- 201 -Low Hematocrit/Low Hemoglobin -(R)
- 12 to 24 months:       Hct less than 33.0 % or  
                                  Hgb less than 11.0 g/dL
- 2 to 5 years:         Hct less than 33.0% or  
                                  Hgb less than 11.1 g/dL

Blood test must be performed at each certification prior to 24 months. Blood test may be waived for children 2 to 5 years old, if at previous certification: Hematocrit was 33% or greater, or Hemoglobin was 11.1 g/dL or greater and only qualified for risks 422 and/or 424.

- 211- Lead Poisoning -Blood lead level of 10 µg/dL or greater within past 12 months (R)

### Clinical/Health/Medical- Priority III

#### ***Nutrition-Related Risk Conditions***

- 341- Nutrient Deficiency Diseases -Malnutrition, scurvy, rickets, hypocalcemia, osteomalacia, etc... (R)
- 342- Gastro-intestinal Disorders -Ulcers, liver and gallbladder diseases, GER, malabsorption syndromes, bowel diseases, and pancreatitis (R)
- 343- Diabetes Mellitus
- 344- Thyroid Disorders
- 345- Hypertension

- 346- Renal Disease -Excluding urinary-tract infections
- 347- Cancer (R)
- 348- Central Nervous System Disorders -Epilepsy, cerebral palsy, spina bifida, and myelomeningocele
- 349- Genetic and Congenital Disorders -Cleft lip or palate, Down's syndrome, thalassemia major, muscular dystrophy, and sickle-cell anemia (not sickle-cell trait)
- 351- Inborn Errors of Metabolism -PKU, hyperlipoproteinemia, galactosemia, etc...
- 352- Infectious Diseases within Past Six Months -Bronchiolitis (three episodes in past six months), TB, pneumonia, meningitis, parasitic infections, HIV or AIDS, and hepatitis (R)
- 353- Food Allergy -Wheat, eggs, milk, corn, or peanuts
- 354- Celiac Disease -Celiac sprue, gluten enteropathy, or nontropical sprue
- 355- Lactose Intolerance
- 356- Hypoglycemia
- 357- Drug Nutrient Interactions
- 359- Recent Major Surgery, Trauma, Burns in Past Two Months -Occurrences more than two months previous must have the continued need for nutritional support diagnosed by a physician
- 360- Other Medical Conditions -Juvenile rheumatoid arthritis, cardiorespiratory diseases, heart disease, cystic fibrosis, and persistent moderate or severe asthma requiring daily medication (R)
- 361- Clinical Depression (R)
- 362- Developmental, Sensory or Motor Disabilities Interfering with the Ability to Eat -Disabilities that restrict the ability to chew or swallow food or require tube-feeding to meet nutritional needs; minimal brain function, brain damage, head trauma, or feeding problems due to developmental delays, pervasive developmental disorder (PDD), birth injury, or other disabilities.

#### ***Other Health Risks***

- 381 -Dental Problems -Nursing or baby-bottle caries, smooth surface decay of the maxillary anterior and the primary molars, periodontal disease, tooth decay, tooth loss or ineffectively replaced teeth (R)

<sup>1</sup> Source: Texas Department of Health. Child Participant Form, November 1, 2000



382 -Fetal Alcohol Syndrome (FAS)

**Dietary -Priority V**

- 402- Vegan Diets -No meat, poultry, fish, eggs, milk, cheese, or other dairy products
- 403- Highly Restrictive Diets -Very low in calories or involving high-risk eating patterns (R)
- 419- Inappropriate Use of Nursing Bottles
- 421- Pica -Dirt, clay, baking soda, starch, paint chips, or ashes
- 422- Inadequate Diet -Three or more diet deficiencies (R)
- 423- Inappropriate or Excessive Intake of Dietary Supplements -Includes vitamins, minerals, and herbal remedies (R)
- 424- Inadequate Vitamin or Mineral Supplementation -  
When water supply contains less than 0.3 ppm fluoride:
  - Child younger than 36 months not taking 0.25 mg of fluoride daily or
  - Child 36-72 months not taking 0.5 mg fluoride dailyWhen water supply contains 0.3 to 0.6 ppm fluoride:
  - Child 36-72 months not taking 0.25 mg fluoride daily
- 425- Inappropriate Feeding Practices for Children

**Other Risks -Various Priorities (See each code)**

- 501- Possibility of Regression (Priority VII)
- 502- Transfer of Certification (No Priority)
- 801- Homelessness (Priority V)
- 802- Migrancy (Priority V)
- 901- Recipient of Child Abuse or Neglect within Past Six Months (R) (Priority V)
- 902- Child of Woman or Primary Caregiver with Limited Ability to Make Feeding Decisions and/or Prepare Food -(Priority V)
  - 17 years or younger
  - Mentally disabled or delayed, or mental illness such as clinical or postpartum depression
  - Physical disability which restricts or limits ability to prepare food
  - Current use or history of abusing alcohol or other drugs
- 903- Foster Care -During previous six months (Priority V)

(R) = Allowable regression risk code for children.